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SYPHILIS.

Prize Essay, A. O. A. Contest for 1906, by C. W. YOUNG, D. O., St. Paul, Minn.

Doctor Evans, in his splendid prize essay, expresses a burning desire to have osteopathy "supersede all other systems of healing and become not *a* but *the science of healing.*" He further expresses the hope that the osteopathic profession shall with singleness of purpose unite in their efforts to realize for osteopathy the high destiny to which its transcendent worth entitles it. The entire profession is becoming fully alive to the fact that we are very far at present from realizing this high ideal.

The treatment of gonorrhea and syphilis forms a substantial part of the practice of the average doctors of medicine, while the osteopath as a rule, is unable or unwilling to treat cases of this character. It will not do to say that these diseases are unclean and are inflicted as a scourge for sin. The perfectly innocent among unsuspecting wives and many others are numerous in every community, and even the guilty, are entitled to the care and consideration of the physician. The complete system of healing, to supersede all others, must embrace a superior treatment in obstetrics, in diseases of the sexual organs, and all other bodily afflictions of humanity from birth to old age.

Doctor Link, in his announcement relating to the prize essay contest for 1906, states that "the subject of the contest is to stimulate original thought and research and to develop the osteopathic philosophy of health and disease." Such stimulation is certainly very fitting in view of the stupendous task before the profession of filling in all the gaps, that must be filled to make osteopathy the one science of healing. For several months past, the writer has been spending considerable time and research with some clinical experience relative to the treatment of syphilis, and it gives him great pleasure to write out the results of his investigation for the consideration of the honorable judges of the prize essay contest.

No one with knowledge of the facts would have the temerity to dispute the statement that syphilis is an infectious disease. The infection is spread by inoculation. Some of the discharges from a syphilitic ulcer or rash pass into an open sore or an abraded surface of another and the scourge is transmitted. Within from two days to several weeks after infection, a pimple or pustule appears on the skin, along the course of the lymphatics, some little distance away from the point of infection. A few days later the pimple or pustule resolves itself into the characteristic ulcer of elliptical form, encircled by a red rim such as is not produced by any other cause. The victims in the early stages of the disease have

no fever and are able to engage in their ordinary occupations, and if they have habitually ignored unpleasant constitutional conditions, they may not observe any marked changes in their bodily state as a result of the poisonous infection. But most of them become aware of feelings of heaviness, dullness and stupidity that become grounds for alarm. It seems as though some silent, hidden foe was surrounding them, determined to slowly crush out their life forces. Such horrible uncertainties loom up before the frightened victims! From the very nature of the disease, they must bear the torturing anticipations alone without any word of cheer or encouragement from unsuspecting friends or from those who are near and dear. There is no other disease, where the prognosis is more uncertain, if one is under medical treatment. The ulcer may prove to be merely a chancroid, that will disappear in a few days or weeks, and all symptoms of spyhilis entirely disappear, never to recur throughout the life of the infected one. On the other hand, the ulcer may be small and of apparently slight virulence, and yet the disease will constantly progress from bad to worse, until after years of slow destruction of tissue the victim ends an existence as miserable as that of those afflicted with the worst case of leprosy, so familiar to readers of sacred pages.

For the purpose of convenience, the progress of syphilis is divided into three stages, though there is no abrupt line of demarcation between these stages. The first stage, known as the primary stage, lasts on an average, from forty to fifty days after appearance of the chancre. As a general rule the lymphatic glands, along the course of the lymphatic vessels draining the area occupied by the chancre, become swollen several days after the appearance of the chancre. The appearance of characteristic rash and eruptions on the skin mark the beginning of the secondary stage. Mucous patches also appear in most cases. The rash or exanthem, as it is usually termed, may occupy only a small area of the skin, and may cause only a slight discomfort to the patient. On the other hand, the syphilitic eruption may cover the entire surface of the skin and appear like a mass of small boils. Fever of more or less virulence, according to the virulence of the disease, usually accompanies the secondary stage. In this stage the constitutional symptoms become much more marked than in the primary stage. In the tertiary stage begins the destruction of tissues other than the skin and mucous membranes, and this slow destruction may continue until death ensues.

The differences in the progress of the disease in different individuals is surprising. In some few cases the chancre appears as soon as two or three days after infection, while in some other cases this appearance requires four or more weeks. Sometimes there is scarcely any swelling of the lymphatic glands. The secondary stage has been known to appear almost immediately after infection, and even the tertiary stage has in rare cases begun its ravages within a few weeks after infection, though it is usually postponed for a year or more. The secondary stage may end in a few days after the coming and going of a slight rash or it may last for many years or be so virulent as to end the life of the patient. The tertiary stage may first appear seven, eight or ten years after the disappearance of all secondary symptoms. It may slightly damage a bone or some other tissue, such as is revealed only by a postmortem examination or it may prove the most virulent scourge with which a human being can be afflicted.

Ulcers appearing on the skin after infection, as a rule assume two different series of characteristics, in different cases. Ulcers possessing one series of characteristics are called chancres and the other chancroids. The greater weight of medical authority, at the present time, consider chancres and chancroids as being

produced by entirely different diseases, and that one having chancroids will not thereby ever have syphilis. The usual characteristics of the chancroid are:

(1) their prompt appearance after infection,
(2) multiplicity,
(3) appearance in generations,
(4) softness,
(5) moisture,
(6) tendency to discharge,
(7) irregularity of outline,
(8) irritability, and
(9) non-appearance of secondary symptoms of syphilis.

A chancroid generally appears in two or three days, while the chancre usually requires at least two weeks. The chancroid is multiple as a rule and after the virulence of one set begins to disappear, another set may burst forth, while with the chancre there is as a rule only one during the entire stage of the disease, though cases of so-called mixed infection are not uncommon, when the patient has both chancre and chancroid, with subsbequent secondary syphilis. The chancroid is soft so as to yield to pressure when held between the thumb and finger, while the chancre feels like a piece of cartilage. The chancroid is moist with a marked tendency to slough off, making the rim irregular, and pressure produces pain, while the chancre is nearly dry, it discharges but slightly, it maintains its regular outline, and moderate pressure produces very slight pain. The chancroid is said never to be followed by skin eruptions or any other symptoms of the secondary stage of syphilis, while medical authority maintains that secondary syphilis inevitably follows the appearance of the chancre.

The budding school of natural healers forming in Germany and elsewhere hold to the opinion formerly held by medical writers, that chancre and chancroid are both manifestations of the same disease. They believe that the varying symptoms are caused by the varying capacities of different individuals to throw off the poisonous infection. They assert too that by the employment of natural forces promptly after infection or after the appearance of the chancre, such assistance can be given to the eliminating powers of the body as to enable it to throw off all the poison of infection, so that the secondary stages need never follow the appearance of any kind of a syphilitic ulcer. They cause the chancre to possess the characteristics of the chancroid, keeping it soft and moist with free discharges, etc. The writer is convinced that the naturopaths are right.. He personally observed a case of infection from a bad case of undoubted syphilis in the secondary stage. Under the natural treatment, the patient escaped all secondary symptoms. The medical writers do not deny that chancroid may be the result of infection from a case of syphilis, but they say the syphilitic must have had chancroid also, i. e. he had two diseases at the same time, although there were no symptoms by which one could be sure he had chancroid, as well as syphilis. This position does not appeal to the writer as being tenable. Furthermore the diagnostic signs determining the difference between chancre and chancroid are frequently not so evident in actual practice as they appear on paper. There are many cases, where, it is impossible for the most skilled of syphilologists to say positively whether a given ulcer is a chancre or a chancroid. Medical texts warn physicians never to advise an infected patient that he may safely enter the marriage relation, on the ground that the ulcer can be surely diagnosed as being merely a chancroid.

Probably many osteopaths cherish at least a secret belief that drugs should be used for syphilis and that the treatment of this disease should be left in the hands of the M. D. The writer has reached the conviction that drugs are just as pernicious in the treatment of this so-called king of diseases as in the treatment of any other disease. The naturopaths unite in saying that mercury does not cure syphilis and that it does more harm than good. They admit that mercury may cause a disappearance of the exanthem in the secondary stage, but they contend that this merely interferes with nature's plan of eliminating poison, which is forced into the deeper tissues eventually making tertiary syphilis more sure to come and more terrible in its ravages when it does come. But we do not need to rely on the views of the naturopaths to find authority for the doubtful propriety of using mercury. The simon pure homeopaths condemn this drug in toto. They say it never has and never can cure any case of syphilis. Furthermore there are a few clear-headed thinkers among the regular profession who become shocked at the evident harm they have seen done in some of their cases by the use of mercury and who now and then sound the note of warning in no uncertain tones. For example, Dr. O. L. Walter, in the *St. Louis Courier of Medicine*, for February, 1906, maintains that severe cases of paralytic dementia and locomotor ataxia, observed in his practice, were caused by mercury given for syphilis. He says that it has long been known that the serious symptoms of secondary and tertiary syphilis can be produced by mercury; that mercury a heavy metal with an atomic weight of 200 and endowed with the property of diffusibility finds lodgment in the vital tissues of the cord and brain and that mercury is a foreign body and brings on inflammation and injurious tissue changes. Dr. J. N. Hyde, in the Reference Handbook of the Medical Sciences, published in 1904, speaks very enthusiastically of mercury, and yet he admits that treatment by a competent physician for two to four years will prevent symptoms of the return of syphilis in only three-fourths of the cases, while at least two-thirds of all patients in all countries, and subjected to all methods or none, escape the destructive ravages of the disease.

If we do away with drugs, it is important that we have an efficient method of eradicating the disease without them, and manipulation alone or adjustment of structural defects will rarely prove sufficient. Furthermore, as a general rule, an osteopath has no right to give manual treatments in his office to a syphilitic. The danger of infection is too great, especially in some phases of the disease, and it would be difficult to make sure that other patients could not come in contact with infectious matter, adhering to the physicians clothing, or the table or any object with which the syphilitic might come in contact. Right here, Dr. Hazzard in his paper, "Safe-guard the Future," comes to the rescue with the assertion that "We may use all non-drug remedial agents to assist nature; all upon fundamental osteopathic principles." Hence thought and research relative to the non-drug treatment of syphilis will tend "to develop the osteopathic philosophy of health and disease" within the conditions prescribed by Dr. Link for the prize essay contest.

Some of the regular physicians give no treatment whatever in the primary stage, while others prescribe mercurial ointment for the ulcer, or internal administration of mercury or the iodides and still others might cut out the ulcer, but all these treatments have proven so unsatisfactory that very few medical texts speak of them with much enthusiasm. Surgical removal of the ulcer is usually followed by its reappearance. While mercurial ointments may cause a disappear-

ance of the ulcer, they do not prevent secondary syphilis, and in some instances, where the ointment causes a prompt disappearance of the ulcer, bad cases of tertiary syphilis follow in several weeks without the intervention of the secondary stage.

The natural healers on the other hand give strenuous treatments as early as possible. In fact, they would begin before the appearance of the chancre, if infection was suspected. The infection enters the blood stream almost immediately, and the disease is probably systemic from the very first, hence local treatment alone must prove insufficient. Cases have been reported, where the entire penis was cut off very soon after infection, and yet it proved to be no prevention of the disease.

The principal natural weapons of warfare against syphilis are the Mehl-light, compresses of lemon juice, earth or water, vapor baths, sheet packs and diet. The Mehl-light consists of a concentration of the sun's rays by means of a burning glass or reading glass. Mehl, of Berlin, Germany, originated this method of treatment. It is more effective in the removal of bad cases of lupus, skin cancers, birth-marks, etc., than the Finsen light. The writer has seen the Mehl-light remove a rodent ulcer, of three year's standing, from the nose of one of his patients. After a few minutes' application of the light, a loud popping noise was heard, whereupon the outer scale of the ulcer peeled off, revealing a mass of whitish material. The continued application of the light caused a combustion of the white material, while livid flames appeared and smoke rose to the ceiling. There were a few subsequent burnings of diseased material, that escaped the first application, after which complete healing came with sound material. The nose healed up nicely, leaving only a slight scar to mark the place, where once was a growth similar to the malignant cancer.

If a patient comes soon after infection with syphilis, the Mehl-light should be applied to the point of infection, with the purpose of consuming as much of the infected material as possible, though the constitutional treatment hereafter described should not be omitted. In case the physician has the case in charge when the papule or pimple first appears, he should apply the light concentrated by a glass about five inches in diameter, and burn out all diseased tissue, being careful to smooth out the edges. If the five-inch glass makes a light larger than the diameter of the pustule and the rim around it, a second glass of smaller diameter, should receive the rays from the larger glass, thereby making still greater concentration. When the glass is first applied, it may cause some pain, necessitating the use of some will power on the part of the patient, to keep still, but after the crust is broken and the flames and smoke burst forth there is, as a general rule, but little pain, while the foreign matter is being consumed. The light is far superior to the knife or a caustic, in that it tends to select for destruction only diseased tissue or foreign matter. Furthermore, its rays penetrate deeply into the tissues searching for all poisonous matter. When ointments cause the chancre to disappear, the poison is thrown into the system, while the Mehl-light destroys such poison as is present in the chancre, and yet it does not have such an effect on the chancre as to preclude a further attempt of the body to eliminate the poison in the blood through the place the burning took place.

The writer has observed several ulcers, where syphilitic material was again deposited, after an application of the Mehl-light had destroyed all inflammation, having apparently burned out all infectious matter. On the other hand, in one case at least, the application of the light to a chancroid seemed to end all syphi-

litic symptoms in it. In a chancre there is an amber colored fluid deposited in solid tissues, like honey in a honey-comb. In one case of a syphilitic ulcer, that appeared the third day after infection, taken from a syphilitic in the secondary stage, the writer applied the rays of the sun as concentrated through a glass three inches in diameter, when the ulcer was two days old. The rays were not held over one spot long enough to cause burning. The light and heat caused bead after bead of amber colored fluid to exude from the ulcer. At one time the glass was applied continuously for nearly three hours. This treatment seemed to relieve the constitutional symptoms quite markedly. The sense of weight and oppression and the contraction of the spinal muscles began to disappear, but on subsequent days the amber colored fluid would re-appear and the constitutional oppression would again re-assert itself, though the elimination of the amber colored fluid undoubtedly tended to rid the system of the syphilitic infection.

The Mehl-light should not be applied when the ulcer has commenced to heal by granulation, and there is no marked swelling or inflammation. Again the ulcer may be too far advanced or cover too large a surface to make this treatment advisable. After use of the Mehl-light, or when its use is not advisable, the ulcer should be kept packed in some compress. Moist earth or clay as a rule is very satisfactory. The writer has found that packing in Marach or Antiphlogistine reduces the pain to a minimum, wards off danger of infecting another, and tends to limit the size of the ulcer. After thoroughly cleansing the ulcer with sterilized water, the Antiphlogistine should be applied directly over the ulcer and then a layer of cotton should be bound on with cloth. This compress should remain until dry. An ordinary clay compress will dry in a few hours, while the Antiphlogistine will remain moist for twenty-four hours. The ulcers should be exposed to the air as little as possible. The pack should be applied from the first appearance of the ulcer until the active stage of inflammation disappears. This may require three to eight weeks or more.

In case the ulcer does not discharge freely, letting out the pus, or the amber colored fluid, it should be packed with absorbent cotton thoroughly soaked with lemon juice. If the lemon juice is too painful or too drastic in its action, it can be diluted with warm water. After the lemon juice has secured the results desired, the earth compress should be resumed, as constant application of lemon juice may cause excessive irritation. Exposure of the ulcer to sunlight or subjection to heat assists in cell metabolism and tends to assist in eliminating the poison. Bathing in hot water or hot fomentations are valuable. The large incandescent electric light of a hundred candle power or more, now found in many physicians' offices, may be applied extensively to the ulcers with advantage. The enlarged lymphatics, called buboes, should be poulticed with earth or cold water compreses.

The most important feature in the natural treatment of syphilis, from the earliest possible time to the later stages, is the steam or vapor bath. Nature tends to eliminate the poison through the skin, and the hot bath assists and cooperates with nature in driving out impurities by means of perspiration, to a very marked extent. The bath relieves the constitutional discomfort very largely. The muscles in the spine and neck will relax and the feeling of languor and stupidity will disappear. As a rule the bath should be followed by a cold, wet sheet pack. An ordinary vapor bath cabinet can be made to produce all the perspiration required. One should stay in the cabinet until the head and face are perspiring very freely. He may then take a rub-down in hot water, followed immediately by the wet sheet pack.

The length of time the patient should be in the bath and pack, and the frequency of these procedures should be determined by the virulence of the disease, the readiness with which discomfort is relieved and the reactive powers of the patient. In some cases, the vapor bath and pack should be taken every day, while in others they may be taken every other day, while hot tub baths are taken between times. The writer is informed that the perspiration treatment is very extensively practiced in Austria, where the bathing is pushed up to the limits of the capacity of the patient to react.

For the wet sheet pack spread six woolen blankets on a couch. Wring out two sheets in cold water and spread over the blankets, with the lower sheet extending about five inches above the upper one. The patient lies on top of the sheets. Fold the upper sheet over the body so as to extend below the arms. Let the arms fall on top of this sheet ,and then fold the other sheet snugly around the neck and over the arms, so as to envelop the top sheet. The blankets should then be drawn over the sheets, thereby packing the patient in so as to shut out the air. For a warm-blooded person, with good vitality and strong reactive power, the sheets may be wrung out of water as cold as that which comes from a city hydrant in the winter time, but for weaker patients the water should be warmer. Reaction is more easily secured after the hot bath. There should be only a momentary chill when first coming in contact with the sheets, after which there should be a delicious warmth through the entire body. Patient should remain in the pack as long as he enjoys it, usually an hour or two. If everything is proceeding all right, he will very likely go to sleep. After emerging from the pack, all impurities forced to the surface of the skin should be washed away. Vigorous rubbing with the hand, performed by the patient himself or by an attendant, will prove grateful to the patient and is an effective aid in ridding the skin of foreign matter.

The diet of a syphilitic should be of a non-meat character. This is important. The skin has enough to do to rid itself of the poison of infection without having the added burden of eliminating the impure matter so plentiful in meat. The raw diet, consisting chiefly of fruit, nuts and the raw vegetables, is to be particularly recommended, but if the patient finds marked difficulty in suddenly accommodating himself to the absence of the stimulation induced by cooking his food, he may indulge in cooked food to a limited extent. He had better, however, suffe considerable inconvenience rather than eat meat. Of course all articles difficult of digestion should be avoided. Likewise tea, coffee, alcohol and tobacco. The syphilitic should be especially careful not to eat so much as to cause any overloading. He must devote all his energies to eliminating a deadly poison. Hence he must not be hampered by charging his lungs, kidneys and skin with the task of throwing off excess of food. Judicious fasting could be of great benefit especially if the patient's weight is excessive or he is overcharged with impurities. All food should be Fletcherized.

Drinking of much water is said to scatter the poison and prevent free elimination. Hence no more should be drank than thirst demands, and in the tertiary stage, it is recommended that the patient subsist on a dry diet, without water, so as to dehydrate the body. It is imperative that the bowels be kept open. Have them thoroughly flushed out once in a while to see if there is any tendency to accumulation. This should be done even if the bowels move every day. Deep breathing will help elimination through the lungs. Considerable exercise, especially that taken in the open air will aid materially. But the patient should not

exhaust himself, nor render himself greatly fatigued. He should also avoid undue exposure to cold, or any procedures that might induce chill, as it is imperative that he keep open the pores of the skin. The baths and other treatment for primary syphilis should be continued for six months. This may be two or three months after all chancres or chancroids have disappeared, and after the consti tutional discomfort has largely abated.

The treatment in the secondary and tertiary stage is largely similar to that for the primary. The vapor baths in the secondary stage, may at first act right opposite to the action of mercury, as they may increase the eruptions, while the mercury suppresses them. But the natural healer regards the eruptions as nature's method of eliminating poison, and he seeks to aid nature, rather than thwart her plans. Some cases of tertiary syphilis can be cured, by natural methods, while others have progressed so far that the patient cannot react, and death is inevitable. The extent of the bathing and limitations as to food and water must be increased for tertiary syphilis, though it is desired to say nothing in this connection, that would tend to lessen the diligence of either patient or physician in a case of primary syphilis.

During the progress of the natural treatment, carbuncles or boils may appear. They are always to be welcomed even if severe in character. They should be poulticed with earth or Antiphlogistine, and every effort made to encourage free discharge of pus and other impure matter.

The patient must be thoroughly impressed with the necessity of avoiding giving infection to others. All substances coming in direct contact with the ulcers should be burned at once after removal. Cloths used for compresses and sheets used in packing should be boiled as soon as possible. Hands of patient or attendant should be washed in a weak carbolic acid solution or some other safe aseptic after every time they have been used in removing bandages or packs.

The writer is greatly indebted for information on this subject to Dr. H. P. A. Curstens, of Rock Island, Ill., who has made an extensive study of the natural treatment of syphilis in Germany, where natural healing is becoming general.

Osteopathic manipulation is very grateful to the patient. A general spinal treatment will relieve the constitutional discomfort almost as fully as a vapor bath. In case of infection of the sexual organs, attention should be paid to removing pressure at the nerve centers for these organs. Springing of the innominate bones and other procedures, so familiar to all osteopaths, should not be neglected. But if the osteopath does not care to put his hands on the patient, he may still learn to effect a cure in a wonderful way by directing the use of drugless methods, and thereby take one further step towards deserving the title M. D. in the sense the title ought to mean—that is Master of Disease.

801 Pittsburg Building.

Those who have carefully noted the efforts of the regulars to secure a monopoly of the healing business will understand, without the following frank statement from the *Medical Mirror,* whose "health" it is about which they are so solicitous:

Conditions of medical men in the big cities are appalling. In this city (St. Louis) there are more than 1,100 doctors who are not making a decent living. Doctors who are sober, honest, brainy, educated amd talented, are living on ten-cent lunches in the saloons, go unshaven and with shiny clothes on their backs. But, Allah be praised for one thing, the toscin has sounded! A campaign of education has been inaugurated by a number of reputable and trustworthy journals in various parts of the country, new light is being disseminated, and little by little it is breaking through and dispelling the gloom. Legislation against quacks, proprietary and patent medicines is going merrily on in several states.

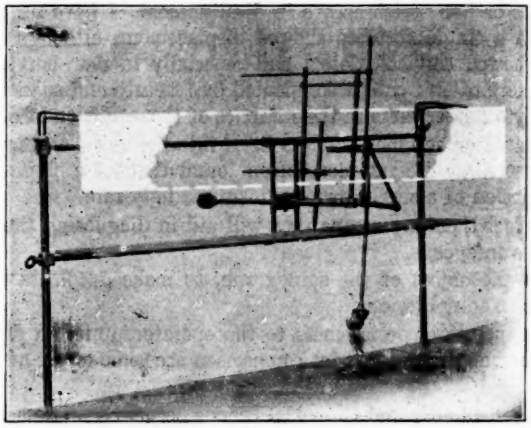
THE GRAPHICAL REPRESENTATION OF SPINAL CURVATURES.

A New Spinograph.

A demonstration before the A. O. A. at Put-in-Bay, by H. F. GOETZ, D. O., St. Louis, Mo.

The Spinograph is a mechanical device designed by me for the purpose of recording graphically all spinal curvatures, that is, recording anterior, posterior, right and left lateral spinal curvatures simultaneously.

Its use is not limited to these curves, as the spinograph can be made to trace any contour in outline that can be brought under the tracer. In calling your attention to this apparatus I realize fully that if the spinograph will do all that is claimed for it, is practical, of such construction that all can use it, it gives to the profession an entirely new method of diagnosing those pathological conditions of which the osteopath takes particular and insistent note, namely, spinal lesions. In approaching this entirely new problem in osteopathy of recording our diagnosis



graphically, please remember that this is the crucial test only in so far as my apparatus is concerned. Naturally I court criticism, and when we are through let us determine what is left, since the problem of recording lesions remains an open field, unworked and yet fruitful of striking results for those who will cultivate it.

I must now restate just two points in osteopathic diagnosis, that I may lead you up to my final argument, not that I wish to burden you with reiteration of elementary principles.

1st. That an abnormal position of a functioning (vitalized) anatomical structure is followed by and causes pathological changes.

2nd. We know from clinical evidence, from the localization of nerve functions, from the microscopic findings of Dr. McConnell that these pathological changes take place in those nerves, blood vessels, lymph channels (and in those tissues contiguous to them, ramified by them) affected by the obstruction.

The object of diagnosis resolves itself largely then into determining the location of the obstruction to nerve force, blood and lymph-flow, that we may exercise our greatest manipulative skill in treating.

While this is the general scheme or theory in osteopathic diagnosis, we must

here ask the question "What is the character of our obstruction and what is its prevailing form?" This is another question that admits of many divisions and sub-divisions; hence I shall only consider that sub-division pertaining to the prevailing, osseous spinal lesions.

The cause and effect of these osseous obstructions will not form a part of this study. I have designed an instrument of precision to aid in diagnosing them. The spinograph records, and studies of skiagraphs, in so far as I have been able to secure them, has led me to formulate this very important theory and question to the osteopath, "Do you find that a single vertebra is more often or less often in disalignment than are groups of vertebrae?" This question is one most difficult to answer without spinograph or skiagraph records. It is a question of data; a question that must be put to the test of comparisons before final answers are given. In my experience this question has passed beyond the realm of mere conjecture or coincidence. To find a spine with only one vertebra in disalignment has been exceedingly rare, when the spine did show disalignment it was in every instance a matter of curves and not angles. Sometimes two, more often three, most often four or five vertebrae are in disalignment. I have never seen a skiagraph in which a single vertebra showed displacement, although I have seen a number that showed cervical, dorsal and especially lumbar curvatures. Single vertebrae are more often found accompanied by fracture and so usually fatal that we need scarcely consider these in the statistics of the condition of disalignment.

All this explanation resumed resolves itself into the assertion that disalignment of groups of vertebrae are far more often found than of a single vertebra, and that a specific lesion of a single vertebra is exceedingly rare.

If this be a fact then any means that will aid in diagnosing the more prevailing lesion is advantageous.

This then is the object of the spinograph, to make graphical records of the *prevailing* osseous spinal lesion.

Accuracy in operation, positiveness to the operator, unity in diagnosis to the profession, interchanging records for comparison are some of the advantages given by the spinograph.

Cervical, dorsal, lumbar and coccygeal lesions become a matter of record, these records I think we had better call spinograph records, as the picture presented is a measure of the extent of the spinal lesions. This aid to diagnosis is an incalculable one when it comes to treatment, with your spinograph record before you, it makes of "lesion osteopathy," rather of specific treatment, a positive triumph. You need not work blindly, you know where to treat. You will be very much surprised at the appearance of the "record" of your first case in which you use the spinograph, for the reason that the mental picture that you form of your case is so different from the actual record. This led me to make a number of observations, and I can only conclude that one seldom forms the correct mental picture of the case, the reason for this is of course obvious, you have no real basis for comparison. Conceptions of lines or contours straight or curved are, as we know, only possible when we have some constant line or measure to compare them with.

The spinograph gives you this line for comparison, also a template to which you can gradually conform your case under treatment. These spinograph records form valuable case records to be filed, they give you an increased assurance in your practice because you know *that they are true records; that would stand in any court.*

In medical jurisprudence, then they may be made to play a very important part.

Forgetting, rediagnosing, treating the wrong group of vertebrae, giving the incorrect treatment or unnecessary treatment can all be avoided, and are inexcusable.

The substitute for vagueness and uncertainty—positive knowledge—is sufficient justification for the use of any apparatus. Other features that will appeal to you, are its possibilities for unity in diagnosis and the comparison of records taken before, during and after treatment.

You cannot eliminate the personal equation of diagnosticians, but you can minimize their inaccuracies, by the use of proper apparatus. Thus in using the spinograph, let any number of observers make a record of the same spine, when practically the same picture is placed before each one, I can make my point much clearer here by a comparison. Supposing that 100 men all try to guess the weight of a heavy object, they lift it, examine it, etc., and 100 guesses, all different, widely divergent are the final results. Now let these 100 men weigh the object on an *accurate scale,* and the difference in the results would be very slight; so in diagnosing spinal curvatures you form many mental pictures of the case, all guesses, while a perfect apparatus compels the same observations, compels unity.

Can you at any time demonstrate conclusively the amount or measure of improvement, if any, that is, or has taken place in your cases? In a case of spinal curvature, do you yourself know whether you are getting results or not? I contend that you do not, from actual experience I know that I cannot detect a change of one-half inch correction, in the case of a posterior curvature (dorsal) and yet I have used successfully the most delicate measuring instruments. Why? as I have said before, because you have "no line of comparison" without this, absolute measurements are impossible to any eye. This line is given by the spinograph.

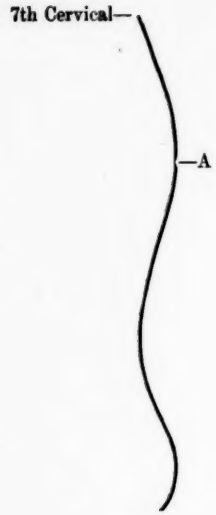
If you cannot detect variations of one-half inch with the eye alone, the effect that this must have on the treatment is obvious.

I wish to call your attention here to the advantages interchanging these records have both for you and the doctor to whom you may send your patient; since it gives a perfect understanding of the case; takes the place of letters that seldom tell you just the things you want to know.

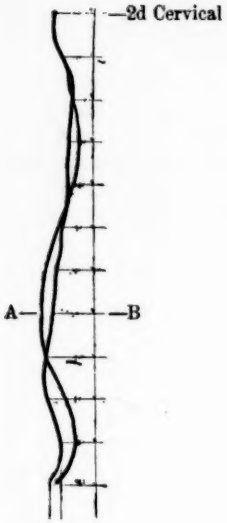
This is not as small a matter as would at first appear. Dr. Jos. Sullivan, of Chicago, has been so annoyed by the suggestions made concerning diagnosis, to his patients, whom he refers to other practitioners, that he has expressed himself, in a rather forcible manner, in the *Journal of Osteopathy,* calling attention of all the osteopaths to the fact that it would be wiser to exercise a little more professional courtesy along this line. My only object in referring to this incident is to show that unity of diagnosis and the interchanging of records for comparison will do much towards overcoming this evil.

I will show only a few studies that I have made, at this time, as we can't do it all at once anyway and I do not want to tire you out completely. This first record (No. 1) one made by the spinograph, is of course the normal spine. It is one that I use as the basis for all my comparisons and is almost ideal in its formation. This patient has lived an almost ideal life from correct living view point, an athlete, not of the extreme type, but temperate in this as he is in all other things.

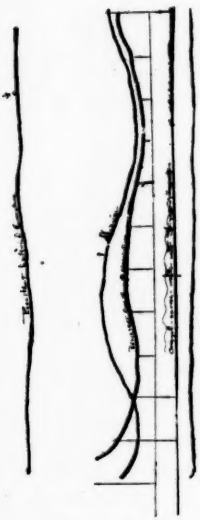
This record (No. 2) I want you to notice particularly, also the one to follow, (No. 3), for they show the future of an important chapter in osteopathy, a chapter that has not been written.



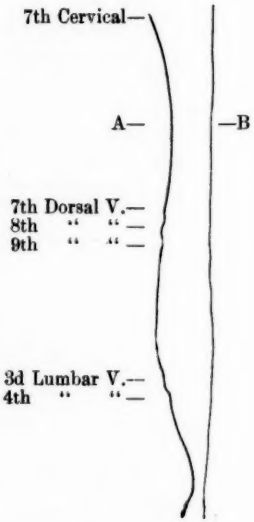
No. 1.
A—Anterior-Posterior.
Normal Spine.



No. 2.
B—Spine of Functional-Nerve-Disease.
A—Overlaid by cut of Normal Spine.



No. 3.
Normal Spine.
Spine of Visceral-Prolapse.



No. 4.
Case Epilepsy.
A—Anterior-Posterior.
B—Lateral.

This is not the curve of any one spine, but it is the "resultant" curve, the composite curve, of thirty cases of functional nerve conditions. I realize that this is not a large number on which to base my conclusion, but it is a beginning, and as you know, it is very difficult to collect clinics of specific nerve conditions.

This curve (No. 2) is the average curve of neurasthenia. I also included three of epilepsy and two of other functional nerve disorders. This is what I term *the straight spine,* and rightly too, I have drawn this normal spine over it in red, (dotted), that you may easily make the comparison. You will now note, the *straight,* almost flat dorsal region, and the *posterior* lumbar group. This spine has been referred to as the spine of functional nerve disorders in osteopathy for the past seven years and yet not sufficient importance attached to our knowledge, to this observation.

Dr. Hazzard first noticed it and refers to it occasionally, in his writings. I began to confirm his observation at that time and two years later spoke of this straight spine as being found in almost every instance of spinal neurasthenia, in an article published in the *Journal of Osteopathy.* My conclusions then were based on but a few cases; now the spinograph confirms this assertion again. Now is this more than a coincidence? for mark me I do not conclude even at this time, that this straight conformation of the spine accompanied by the posterior (probably compensatory) lumbar curve is the cause of nerve exhaustion, although I am at least mightily tempted to make conservative claims to this effect.

This very important record (No. 3) is like No. 2, a composite, the average curve then of thirty cases of visceral prolapse, including prolapse of the stomach, intestines, kidneys, ovaries, uterus, or rectum. Of these sixteen had floating kidney, three of these have since been treated surgically and the diagnosis thus confirmed.

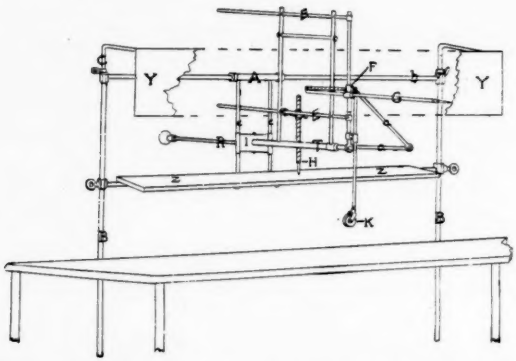
I do not know positively whether I am the first to note this spine or not. I wrote of it about five years ago, as the spine that seems to accompany or cause visceral prolapse. Dr. McConnell mentions this spine in a recent article of his in the *Journal of Osteopathy,* under the title, "Postural Defects," here in this curve No. 3 that I show, you will note just the opposite conditions prevail in this one comparing with No. 2, note the exaggerated posterior dorsal curve and the flattened, almost straight, lumbar curve.

I call your attention again to the fact that these are not the records of an individual case, it is *the average* that you have before you. I hope finally to prove that distinctive spines are always found in certain diseases, or that certain spine conformations are noted with certain groups of symptoms.

This is an entirely new idea for you to consider. Observe! and let us see if this can eventually be proven. In conclusion, the point I wish to make is, supposing that at some future time you observe spinograph records like this one, (No. 2,) or this one, (No. 3), you know that instead of sixty cases, the curve is the average of 1,000 or more observations, would you hesitate in saying, "This, (No. 2), is the spine of neurasthenia." "This (No. 3), the spine of visceral prolapse." I would not and neither do I think that you would. We have now the opportunity for developing an entirely new chapter in the symptomatology of osteopathy, namely, "Diseases (groups of symptoms) accompanied by characteristic conformation of the spinal vertebrae. In order to carry out this phase of diagnosis, we must have a way to collect the data on which to base our conclusions, hence the necessity for mechanical diagnosis. We cannot collect these data, we cannot study these spinal lesions and rest our case on mere dogmatic assertion, we must record

and preserve records. We have reached the age in our development when scientific men are demanding of us that we give proof of our newer symptomatology and pathology. We must find the way to record.

202 Odd Fellows Building.



ADDENDA—MECHANICAL DESCRIPTION OF PANTAGRAPH.

The carriage A, travels on the guides B, attached to the carriage A, and moving vertically on the rods C C; for guide adjustment of the roller K to the spine, is a second carriage I; passing through I is the rod R, which slides back and forth in the bearing T. To T is attached the third carriage F F; to E E is attached the rod F K, carrying the marker or pencil G. G is raised and lowered by turning the handle R, which raises F, through the two fingers A A. The pencil G registers the anterior and posterior curvatures on the plane Y. Roller K passes over the spine of the patient lying prone on the table as K, rises or falls, the pencil G rises or falls, thus marking the anterior, posterior, curvature on the plane Y Y.

To the lower rod E of carriage E E is attached the pencil H; this pencil is under the control of the handle R, and as the roller K traverses the *lateral* curvatures of the spine, pencil H moving backwards and forwards, reproduces these lateral curvatures on a sheet of paper attached to the plane Z Z.

To use the spinograph, the patient lies prone on the table; the roller K is adjusted to spine by turning R, for ant-post curvatures and drawing it in or pushing it out for spine by turning R; for ant-post curvatures and drawing it in or pushing it out for lateral curvatures; the markers G and H are automatic, and trace all curves in two planes, simultaneously. The spinograph can be attached to a board, placed on top of any operating table; or this board can be placed upright, and tracings made of the spine while patient is standing. I prefer the prone position because the patient does not move.

OSTEOPATHY AS A PROFESSION.

Paper read before the A. O. A. at Put-in-Bay by J. H. SULLIVAN, D. O., Chicago.

"Order is heaven's first law;" this fact is apparent all about us, whether we look at the heavens above us, at the ebb and flow of the ocean's tide, or more closely observe the grasses grow, the trees blossom and shake off winter's thraldom at the bidding of welcome Spring. Order is apparent everywhere from the mathematical accuracy of the earth's movement in space even to the minute blood corpuscle wending its intricate way through our arterial system. Proper understanding of order, if indeed possible, would demand of us more years of life in study than we may safely count upon as ours.

In this paper, however, order is not that which calls for its production; rather may we deem disorder or disease the exciting cause for the paper as well as for the

birth of the profession of osteopathy which has for its only claim on man's love and confidence its desire to restore order in man.

The preparation of a paper, a treatise or theme on any subject, to be a success must of necessity be the offshoot of the thoughts of one whose heart and soul is in the subject. This is my position perfectly wherever or whenever I am questioned as to osteopathy as a profession, a means of relief for ills. I appreciate too well my shortcomings in the ability to fully express myself—I wish for a hundred tongues with which to carry conviction.

Like Mary Antony in Julius Caesar:

> **Were I Brutus, and Brutus Antony**
> **There were an Antony would ruffle**
> **Your spirits and put a tongue in every wound of Caesar that should move the stones of Rome to rise in mutiny."**

The mutiny I desire is that against established drug therapeutics. The revolution is here; if we have recently read *Collier's* and other publications which have braved the ire of the patent medicine trust we cannot but have become cognizant of the revolt against the proprietary medicine combination, culminating in the recent congressional enactment.

The Ladies' Home Journal has formulated a hostile bill for use in all states against the octopus, and said Journal complains that strangely enough the regular doctors seem indifferent to the cause; rather show a lethargy unexplainable.

I feel confident that those in touch with things in general can understand the lethargy mentioned; in what essential way does the proprietary dose differ from the ordinary prescription? Are not the allowances of strychnine or alcohol exactly the same—assuredly they are regular school prescriptions unethically exploited, hence the lethargy. Certainly most of you in my hearing have read and re-read medical practice; if so, you must substantiate the contention.

Are we then wise prophets if we claim that suffering humanity will shortly rally around some non-medical standard—we are indeed tardy in the prophetic line, for the time is here, *now*, this minute. It is no uncommon thing to overhear two people discussing their ills and to hear the remark: "Do you know I have quit drugging?" And the other party's query, "What are you taking, osteopathy or Christian science?" This is often heard, and it indeed bodes ill for drug practice in the days to come.

Let us ponder a moment and decipher the handwriting on the wall; we then realize the approaching doom of the noxious dose; it has held sway for a comparatively short time in the history of the race and at great cost to humanity from an osteopathic standpoint. Osteopathy as a profession has one competitor and a formidable one in the Pantheistic doctrine called today Christian science.

Oddly enough we find in Century Cyclopedia pantheism defined in one passage as essentially unchristian, is that God is the only substance of which the universe and man are only manifestations.

Pantheism flourished among the ancient Greeks and Romans, and withal few more noble people physically ever existed. Every ill had its own god, who on appeal silenced disease; suggestion you see had its place then as now, the difference being that numerous deities had power to banish numerous ills, while now the idea is to endeavor to convince yourself that you have naught but mind with which to suffer disease—really a more convenient situation if one can so reconcile one's self.

Do not understand me as ridiculing Christian science or any form of sugges-

tion. Osteopathy as a profession must in part utilize suggestion if it wishes to fully gain its goal in its race with disease. True, suggestion has little in common with setting a hip, with the reduction of dislocated phalanges, etc.

On the other hand, however, I venture the opinion that your average case under osteopathy makes a quicker recovery if not taking treatment under protest. I recall the case of a youngster of twelve, an embryo footballist, whose treatments on Saturdays always spoiled his football practice; as a result he disliked the doctor every Saturday, but on Tuesday ,when he had a half day off from school work he appeared better and really was better. He was cured of eczema, his bony lesion was a bad eleventh and twelfth dorsal, the auxiliary lesion was enforced absence from his play on Saturdays.

Osteopathy as a profession has a place all its own; we are not in any sense wonder workers; no, we are simply proving by a simple adjustment the infinite wisdom of God, the Creator of man. Man is endowed with a free will; said will allows the man to cast himself from the highest building if he so wills and with great cost to the man. This being granted, what more natural than to accept the proposition that man from infancy to old age falls in learning to walk, strains in youth, over works his framework in toil or totters and meets with mishaps in his dotage; who dare gainsay the probable wrong adjustment resulting with the osteopathic theory of pressure on some of the intricate mechanical arrangements in man.

There had been no cognizance of this situation with reference to man in disease until our revered Dr. Andrew Taylor Still had the hardihood and the courage of his conviction and honesty of purpose enough to blazon it forth to the world. The world at once grapsed eagerly the new truth and is better for it. God bless Dr. Still and credit him for the existence of osteopathy as a profession.

I hope by these foregoing words I am understood as being a bony lesion osteopath; if any doubt exists along that line, pray pardon me if I try to make my position plainer—osteopathy as a profession became such—why? Dare we deny that it was because of the elimination of drugs from treatment of disease? Was it not because osteopathy rendered unnecessary in scores of cases butchery of woman, ovarian surgery, rectal surgery and the like? Assuredly it was. Has not osteopathy rendered less imperative hydrotherapy, dietetics, eliminated the vibrator, special ointments externally in eczema, physical culture, climatic changes and the like; assuredly this is why I entered and have loved osteopathy as a profession.

Be indulgent, then, with me when I say that when asked to turn back again after practicing for years with some success pure Dr. Still osteopathy and take up again those discarded relics, I say it appears too much like the inelegant but trite saying, "The dog returns to his vomit"—I'll none of it. Osteopathy as a profession has served me faithfully for ten years in constant practice, my reward has been good, first in the consciousness of being able to heal suffering mankind, and a natural sequence was the monetary adjunct, which helps some.

During these years of osteopathic practice I have never for one moment had a desire to utilize mercury or quinine as an aid to my work—rather would I deem them sacrilegious. It is generally known, of course, that mercury and quinine are almost two solitary chemicals which support medical practice. High priests in medicine are on record to this effect; they also confess them very uncertain.

Regarding the whole range of adjuncts to medical practice, massage in all forms, hydrotherapy, the serums, anti-toxins, vibrators, light rays and of necessity

the blood count, what of them? I assert without fear of contradiction that they have come in vogue prominently within the past twenty years. Why? Because of the discovered uselessness of the former wide diffusion of noxious drugs.

In view of all this my faith in man's ability to think independently is frequently shaken at sight of the D. O. frantically striving for the M. D. cognomen. Oil and water striving to affiliate. It cannot be.

There is no specific in medicine for pneumonia, rheumatism, the fevers and paralysis; this is freely conceded by the authorities. I will mention, however, that many Chicago practitioners now admit the bare possibility of osteopathy being of service in cases of the above; for which we are grateful.

Too much stress cannot be laid on our most careful attention to osteopathic diagnosis in handling our cases, to the exclusion of the spectacular methods in vogue in other schools, a plain simple statement of facts by our patient should suffice to guide us in the quest for the cause of disease osteopathically.

A patient in the throes of acute or chronic gastritis profits nothing from examination of stomach contents; our duty dies in the direction of adjustment, of releasing contractures along the pathway of the splanchnics, of renewing proper vaso motor control of the part. This can be done by mechanical procedure to the exclusion of every book on medical diagnosis ever printed.

The osteopath who muddles his good osteopathic position with confusing books on medical diagnosis, waiting for certain symptoms to appear, hesitating in his work for fear of certain types of disease being likely to develop, reminds one of the old Kirksville story in the case of a fire department responding to an alarm, and on reaching the blaze instead of throwing water on the fire sat down and held a consultation as to how best proceed and which company had precedence in overcoming the fire. Go right to work; we are armed to rout fever, to dissipate chills, to rouse inactive livers, to cause renewed gastric secretions. Let us adhere strictly to our teachings if we expect to occupy a proper place in the esteem of a discerning public. It might be remarked at this time that the people at large have learned to a remarkable extent that the safest osteopath is he or she who uses no paraphernalia, which lacks the same degree of intelligence as is embodied in two hands guided by a clear head. Look over the roster of those in most successful practice for verification.

The vibrator has found its proper home in the barber shop or the bath room. Electric lights of varied colors as applying to diseased conditions have received their quietus from the great Edison, who says mankind may light cities and move cars with the subtle fluid, but should disabuse his mind of the idea that it has any therapeutic value.

This is as we would wish. We are confident of being fully equipped for practice in being in full possession of two good hands and one head, which I hope is good and stored as far as we are able to store it with unadulterated osteopathic knowledge.

Nothing we have absorbed should in any manner militate against our advising a man to drink water before breakfast or to walk to his business instead of riding, to open his window at night. It would be mere quibbling were we to debate such.

It is humiliating to have to apologize frequently for some wise brother or sister who practices with a 500-candle power light with which to burn it in or who drives home the treatment with a faradic battery. However, the apologizing is usually done when the subjects have awakened to the fact that proper treatment needs none of the above and have placed themselves in the care of such practition-

ers, so that some of the humiliation is mitigated by observing prompt response to intelligent adjustment of structure without aid of foolish auxiliaries.

Osteopathy as a profession has passed its crisis, thanks to those in the work who absorbed its vital principle of being an independent and complete system.

Man is a complete system, or world, if you will; let us fully understand this idea and our position is unassailable. If we question the fact then we are drifting, and without chart or compass we shall continue to drift with the ebbing and flowing tides, buffeted by the shifting winds as to the efficacy of a slight operation for the tonsils, or the removal of an ovary or a gland, or perchance the prevailing fad of the well-to-do man of being separated from his poor appendix.

We must of necessity keep our bearings in the practice of osteopathy; keep in sight of the noble standard reared by Dr. Still; he who hesitates is lost in osteopathy as a profession, as in other things where steadfastness is essential. Let us always keep in mind the fact that interference with the coursing of the artery or vein is the primary cause for disease and our diagnosis and treatment is made easy.

How disheartening the controversy as to what class of osteopaths one owes allegiance. There should be but one brand of osteopath; an adjuster, with all due respect to the chiropractic plagiarists. Harmony is what we all seek to establish in man, as it exists in all nature, and the practitioner in osteopathy should recognize the fact that drugs are sowers of discord; they do nothing toward harmonizing man.

Surgery has its place, also its limitations. Osteopathy has firmly established itself in public regard as a preventive of the occasion for surgery. Surely all of us recall more cases saved from surgery than have had to resort to the knife, following osteopathy; in my experience the ratio is far to the advantage of osteopathy. If this is granted, why forsooth, do we not advance our profession to the point of still further prevention of surgical necessity rather than add surgery to our list of attainments?

Osteopathy as a profession has suffered more keenly from incompetents within than those opposing us from without; the natural deduction must be that the fault lies often in the school as well as with the individual. Many have become convinced that too little time is devoted to osteopathic advancement and too much attention given to extraneous branches, and should delight in seeing the balance show the other way. I am an earnest seeker after truth and I am open to conviction as to whether surgery, abdominal and pelvic, saves life in the proportion claimed; experience has taught me that the claim is false. I fear that medical statistics are not reliable, in truth—I more than fear it.

Individuality attaching to the osteopathic practitioner is very great. We study the general principle, to be sure, but in the individual case coming before us we stand or fall in proportion to our ability to harmonize the disordered structure and successful efforts redound to our individual credit more than to the works of any school or practice, surgical or medicinal.

Two systems of healing are making progress today, osteopathy and suggestion. Osteopathy has nothing to fear from suggestion. We all make use of it daily in casual meetings with friends; we flatter, we cheer them on, we unconsciously rely on its potent influence even in our meditations. However, its scope is not as wide as that of osteopathy as a profession; bone setting calls for more materialistic effort than does suggestion, and while man is man he shall not be immune to common effects, resultant from accident, whether slight or great, with the logical necessity for the ministration of the adjuster, the osteopath.

All those longest in osteopathic practice no doubt have been asked many times by their fellows what things are most essential to the building of a practice. Experience has demonstrated one great essential—the appearance of confidence on the part of the doctor; another great factor never to be lost sight of is the necessity for clean, tidy quarters for practice. A treatment room is better without adornment of any description than with horror-inspiring charts and unintelligible illustrations along anatomical lines; these things should appear only in a consultation room, not in the room devoted, perhaps at times, to the quieting of a case of wild hallucination.

The exaction of a legitimate fee for service should never be lost sight of in practice; he or she who will accept a fifty cent fee is always looked upon as a fifty cent osteopath. A case in point is that of a party not one hundred miles from Chicago, who treated another case once for another practitioner. Said case had been paying about four dollars a visit, and this individual charged him twenty-five cents and was rated, of course, as a quarter-dollar man. The laborer is worthy of his hire and we cannot possibly possess the esteem of those whose regard we seek if we make of ourselves petty catch penny people—there are many examples to fit this paragraph.

Let us be dignified and proud of our profession and no code of ethics but will be easy for us to follow; we will command the esteem of even those opposed to us in other schools. Should we falter in our profession, remember we have more of truth than any other school of practice. Let us not allow ourselves to pick up any of the discarded relics of drug practice; the family prescription is identical with the advertised proprietary dose.

Colliers' of recent date says:

"Study the medicine advertising in your morning paper, and you will find yourself in a veritable goblin realm of fakery, peopled with monstrous myths Here is an amulet in the form of an electric belt, warranted to restore youth and vigor to the senile; yonder a magic ring or a mysterious inhaler, or a bewitched foot-plaster which will draw the pangs of rheumatism from the tortured body 'or your money back'; and again some beneficent wizard in St. Louis promises with a secret philtre to charm away deadly cancer, while in the next column a firm of magi in Denver proposes confidently to exorcise the demon of incurable consumption without ever seeing the patient. Is it credible that a supposedly civilized nation should accept such stuff as gospel? Yet these exploitations cited above, while they are extreme, differ only in degree from nearly all patent medicine advertising. Ponce de Leon, groping toward that dim fountain whence youth springs eternal, might believe that he had found his goal in the Peruna factory, the Liquozone 'laboratory,' or the Vitae-Ore plant; his thousands of descendants in this country of enlightenment painfully drag themselves along poisoned trails, following a will-o'-the-wisp that dances above open graves."

Our profession will not be advanced by unwise and unprofessional reference derogatory to our brothers and sisters in the work; the mantle of charity should be spread over their shortcomings, whether they err in a professional sense or otherwise; we lose caste and lose practice if we allow ourselves to lapse along this line.

The unfortunate and baneful idea advanced by some parties that one sex cannot with advantage or propriety be treated by one of the opposite sex has given birth to a spirit of hostility in some, which is justified by the facts and has done much to injure the profession as a whole, and calls for correction—as well

might we call for the drawing of such lines in surgical work of all kinds. The idea is childish and without justification and acts as a boomerang on those who have launched it, as has occurred in other schools of practice.

The profession is having much to carry in a few localities where, instead of pulling together and dwelling peacefully, rival organizations exist in osteopathy; as a rule this condition is the outcome of some of our number trying to control such societies for selfish ends and indulging in cheap peanut political methods to attain them, thereby driving away any fraternal spirit which such organizations were intended to foster and working great injury to us all. No organization at all is preferable to such conditions. United we stand, divided we fall.

The public has opened its arms to osteopathy; let us awake to the tremendous fact that we have a system which is accepted as more exact in its workings than any system ever has been; proper appreciation of this by us will inevitably strengthen us in our profession and prove a needed boon to suffering humanity.

Do we hesitate? Do we falter? Turn our eyes on the career of the great osteopath, Andrew Taylor Still and we will gather new hope. He fought the real fight for years; he suffered poverty, calumny, misrepresentation and yet kept on and on, conscious that truth is mighty and must prevail; and it seems providential that he should be spared to see the result of his life work as he has been allowed to do. Let us properly cherish the heritage given us; let us be osteopaths indeed, not in name only, and thereby honor Dr. Andrew Taylor Still, and an appreciative humanity will support us in the future as in the past; and all, whether doctor or layman, will advance to its rightful goal, osteopathy as a profession.

504 Trude Building.

THE VASO-MOTOR SYSTEM.

Read before the Montana Osteopathic Association at Helena, September 6, 1906, by L. K. Cramb, D. O., Butte, Mont.

The condition of the vaso-motor mechanism has more to do with health or disease than any other one thing. Many diseased conditions result from interference with the vaso-motor system.

The osteopath in his treatment of diseased conditions, seeks more than anything else to correct vascular abnormalities, which are due almost entirely to lesions influencing vaso-motor centers or nerves.

Considering their importance, a discussion of the normal anatomy and physiology of the vaso-motor system, together with a brief reference as to how abnormal conditions are brought about and how treated, will not be amiss here.

The vaso-motor system consists of a general center in the medulla, with other centers in the cord and sympathetic ganglia, neuraxons connecting the centers, and the vaso-motor nerves proper, going to all the arteries of the body, and probably the veins. The middle coat of the arteries is muscular, and it is through the action on this coat that blood flow is controlled.

Henle says: "The movement of the blood depends upon the heart beat, but its distribution upon the blood vessels; now the vaso-motors control the distribution of the blood by action, more particularly on the smallest arteries, just before they break up into capillaries. In the larger arteries the elastic coat is more highly developed but in the smaller one the muscular coat is highly developed at the expense of the elastic."

Vaso-motor nerves are of two kinds—vaso-constrictors, which on stimulation

diminish the calibre of the vessels they supply, and vaso-dilators, which on stimulation dilate the vessels.

Section of a vaso-constrictor nerve causes the vessel to dilate. An example is, that section of the cervical sympathetic or removal of the superior cervical ganglion, results in dilatations of vessels on the corresponding side of the face.

Section of a vaso-dilator does not, however, result in constriction of the vessels which it supplies.

The explanation usually given is that the vaso-constrictor nerves act continuously and thus keep the blood vessels in a state of tonus, while the dilator nerves are only called into action at intervals, that is, when needed.

This seems probable when we consider that the pressure of the blood within the vessel is outward.

This is necessary to regulate the right amount of blood which shall pass through a given vessel, and the vaso-dilators are only occasionally needed.

The chorda tympani is a typical vaso-dilator nerve. No apparent result follows its section, but upon stimulation of the end in connection with the sub-maxiliary gland large quantities of bright scarlet blood immediately flow through the gland, and an abundant secretion follows.

As vaso-motors have been proven to exist in the portal vein and the superficial veins of the trunk, from deductions we are led to believe they exist in all the veins, but of course are not as highly developed as in the arteries.

The following differences between vaso-constructor and vaso-dilator nerves are taken from the American Text Book of Physiology:

"Vaso-constrictors are less easily excited than vaso-dilators. Warming increases and cooling diminishes the excitability of the vaso-constrictors to a greater degree than the vaso-dilators. Vaso-constrictors degenerate more rapidly than vaso-dilators after separation from their cells of origin. The maximum effect of stimulation is more quickly reached with the vaso-constrictors than with the vaso-dilator nerves. The two sorts of nerves have been said to differ in the manner in which they are distributed. The vaso-constrictor nerves leave the cord as medullated fibres enter the sympathetic chain of ganglia and end in terminal branches probably in contact with a sympathetic ganglion cell. The constrictor impulse is forwarded to the vessel by a process of this cell, either directly or by means of still other sympathetic ganglion cells. The vaso- dilator fibre on the contrary, was thought to run directly from the cord to the blood vessel; but recent investigation makes it probable that all spinal vaso-motor fibres end in the sympathetic ganglia." (Page 196-7, Vol. I).

Vaso-constrictors are said to be distributed chiefly to the viscera and cutaneous vessels, and the vaso-dilators chiefly to the skeletal muscles, and some local structures and glands. The vaso-dilators are specialized in connection with secretory glands, where a special mechanism is needed to regulate blood flow, on account of extreme variations at different times.

That the general vaso-motor center exists in the medulla is proven by section of the spinal cord in the upper cervical region, which results in general vaso-dilatation. Stimulation of the cut fibers of the cord results in constriction of the previously dilated vessels.

Hence from this it is evident that the vaso-constrictor fibers must have been severed, the section resulting in an interruption of the vaso-constrictor impulses. This also shows that the vaso-constrictor center is always active or has a tonus. It seems to be located in the medulla not far from the corpora quadrigemina. A definite vaso-dilator center has not been located.

It has been demonstrated experimentally on lower animals that vaso-motor centers exist in the spinal cord. This is done by section of the cord, thus cutting off connection with the general center in the medulla.

Thus the stimulation of the central end of the brachial nerves after section of the spinal cord at the third vertebra causes a dilatation of the vessel of the fore limb." (Am. Text Book of Phys., page 200, vol. I).

This shows that the spinal nerve cells take a part in the vaso-motor reflexes, and the existence of spinal vaso-motor centers, which are of course under control of the general vaso-motor center in the medulla.

Existence of vaso-motor centers in the sympathetic ganglia has been demonstrated. Even after the removal of parts of the spinal cord vascular tonus is still maintained. The sympathetics are also probably centers of reflex vaso-motor action.

The general vaso-motor center exists in the bulb; from cells in this center neuraxons pass down through the spinal cord to arborize around cells in the spinal vaso-motor centers; from these cells neuraxons leave the spinal cord by way of the anterior roots of the spinal nerves, and enter the sympathetic ganglia, where they terminate by aborizations around vaso-motor cells; some may pass on through the ganglia; from these cells neuraxons pass directly to the smooth muscles of the walls of the blood vessels, either over spinal nerves or to the sympathetic plexuses on the blood vessels.

Vaso-motor centers also exist in the neuclei of certain cranial nerves; neuraxons pass from the general vaso-motor center to these neuclei; from these fibers pass to the sympathetic vaso-motor center or ganglia on the cranial nerves.

The spinal vaso-motor centers are probably situated in the anterior and lateral gray substances in or near the column of Clark from the first or second dorsal to the second lumbar.

Most of the cranial nerves contain vaso-motors. Vaso-dilators are found in the chorda tympani branch of the seventh; the trifacial contains vaso-dilators for the eye and parts of the face; the lingual branch of the fifth and the glosso-pharyngeal for the lingual vessels, and the vagi for the coronary arteries of the heart. Some vaso-constrictors are thought to exist in the lingual, also the ophthalmic branch of the fifth. The vagi, by some authors, are thought to contain vaso-constrictors and probably vaso-dilators for the lungs, heart, stomach, intestines, kidneys and spleen. (Reference Handbook of Medical Sciences.) The hypoglossus contains vaso-constrictor fibers for the tongue. "Most if not all of these vaso-motor fibers arise in the dorsal sympathetic, and reach the above mentioned nerves by way of the superior cervical ganglion."

Vaso-motor nerves may be excited reflexly by different impulses, from sensory nerves in general, or from impulses arising from the blood vessels themselves. The reflex usually appears in the area from which the apparent impulse arises, but not always so; if not, some part with an associated function is affected or a bilateral part.

As a usual thing when the superficial vessels are constricted there is dilatation of the deep vessels, and vice versa. Thus congestion of the abdominal vessels is usually associated with constriction of the superficial vessels. This is vividly demonstrated in the case of a chill, where there is deep congestion and maybe fever, but the superficial anemia causes the sensation of cold—thus the chill.

In this way the vaso-motor nerves take a very important part in the heat regulation of the body. While special heat centers and nerves probably exist they are

very intimately associated in action, the vaso-motor being brought prominently into action in heat production, regulation and dissipation The bulbar vaso-motor center controls, or I might say, presides over all the vaso-motor nerves. It is probably, as before stated, always active, and serves to keep the vaso-motors in a state of tonus and causes or tends to cause general constriction of the blood vessels. Therefore any agency which would inhibit or show the action of this center would cause general vaso-dilatation. The depressor nerve leading from the heart to the bulb through the vagus, causes general dilatation of the blood vessels when stimulated. It is not proven but seems very probable that the depressor nerve causes reflex dilatation of the blood vessels by inhibition of the bulbar vaso-motor center. In speaking of the action of the depressor nerve the American Text Book of Physiology says: "It probably acts on all the vaso- motor nerves connected with the vaso-motor center," and further says: "The depressor nerve is not in continual action; it has no tonus, for the section of both depressor nerves causes no alteration in blood pressure."

The stimulation of the depressor nerve seems to come directly from the heart; probably the effects of high blood pressure stimulate it through the action on the heart.

A rapid heart is usually associated with a general rise in blood pressure. Speed of the blood and rise in blood pressure occur synchronously. This may, however, occur independently of the bulbar center. In a rubber tube into which water is forced, the more force used the faster the flow and the higher the pressure. But in the case of the blood vessels the increased velocity of the blood, and rise in pressure, would tend to expand the blood vessels, then the bulbar center may be brought into action, either to keep the vessels from expanding too much from the increased pressure, or letting them expand more so as to lower blood pressure. The rate of the heart and peripheral resistance vary inversely, and the action is regulated through the bulbar vaso-motor center.

Other afferent nerves may have some influence on the bulbar center. Thus stimulation of the central end of the cut splanchnic nerves causes a reflex rise in blood pressure, but sometimes a fall. Normal impulses may come through afferent nerves to the bulbar center, and act similarly to the depressor nerve, but it seems to me, the depressor nerve would be all the afferent nerve necessary to affect the general center; other afferent nerves would affect local or spinal centers, influencing local blood flow.

The condition of the blood itself undoubtedly has an effect on the bulbar center, also the spinal centers. A nerve center must have the proper amount of the right kind of blood, in order to act properly. Any condition, then, that would affect the quality of the blood would have an effect on the center, the kind of effect depending of course on the nature of the blood change. Kirk's Physiology says rise in blood pressure may be produced by a stimulation of the vaso-motor center in the medulla by carbonated or deoxygenated blood, or decrease in blood pressure, produced by oxygenated or aerated blood.

Other conditions of the blood, whether toxic or lessened in nutritive properties, would certainly affect the bulbar center, also the spinal and sympathetics.

The bulbar center is undoubtedly affected by local interference with the blood supply to the medulla and thus affects the vaso- motor condition of the entire body.

Lesions to the upper cervical vertebrae or contractured muscles, would affect the blood supply to the medulla.

It has been stated by some authorities that sympathetic fibers exist in the cervical region, which have a controlling influence on the bulbar center.

If such is the case, any interference in the neck by lesions or otherwise, would affect the center in some way.

The bulbar center is also influenced by the higher centers, as a sudden pallor or blushing, although this result is manifested locally in the face on account of its greater vascularity and because the face is exposed to view and attention is directed to it. The spinal and sympathetic vaso-motor centers are controlled by the bulbar center, but have an independent action, which is influenced largely by afferent nerves. The effect of afferent nerves on the local spinal and sympathetic centers is probably very similar to the action of the depressor nerve on the bulbar center, yet the local centers are more highly specialized.

In the digestive glands and organs, for example, local vaso-motor conditions play a very important part, as increased blood supply is needed to furnish secretions, and afferent nerves necessarily lead from every organ and gland to its local center, although nearly all the digestive glands are affected by the higher centers, or by afferent paths remote from them, as the increased blood flow to the salivary glands and increase in the secretions of saliva upon seeing food, or the secretion of gastric juice as soon as food is introduced into the mouth. The local centers are probably affected in about the same way as the bulbar center by the quality of the blood, by the higher centers or by local interference with the blood supply by lesions along the spine, which may also affect the afferent or efferent nerves to the center.

Besides vaso-motor centers in the spinal and sympathetic cords, local ganglia and plexuses, are centers for local vaso-motor actions, especially in association with a secretory organ, but these are dependent on centers higher in spinal and sympathetic cords.

Vascular changes produce changes in the tissues—the first effect of dilatation of the vessels and congestion of an area, is a red mottled appearance of the skin, with increased temperature and hyperesthesia. If prolonged, secondary changes take place—the area is cold and clammy, blue and edematous, although subjective heat remains. Hypertrophy or hyperplasia may also take place. In prolonged constriction of vessels we find the area cold, dry, lowered temperature, anesthesia and atrophy. In congestion the hyperesthesia may amount to pain due either to the pressure on the terminals of the nerves or the toxic effect of stagnant blood on nerve terminals.

Vascular changes due to vaso-motor disorders may be conveniently classified as follows:

I. Local anemia or congestion of an organ or part of the body, due to lesion to the center from which the part is supplied or to its nerves, or overuse or disease of the part. Under this head is included a congestion or anemia of any organ or part, primarily heart, lungs, digestive organs, genito-urinary organs, etc.

II. General vaso-motor effects due to a general or local cause, as impressions from the higher centers, or a local cause sufficient to cause general effects. Under this head is included some cases of hysteria or hystero-neurosis, shock, chill or chilliness of the body or coldness or dryness of the skin, flushing, certain febrile conditions, etc.

III. Local reflex vascular changes, as redness of the nose and malar prominences in post nasal catarrh or gluttony; flushing due to menopause or menstrual disorders; coldness of the extremities due to biliousness; burning of the vertex and occiput in uterine or ovarian disease; numbness or coldness of the left side of the

body, due to indigestion; hemicrania due to various reflex troubles; various vascular changes in the head; heart, digestive organs, etc.; in laceration of the cervix; weak eyes in pelvic diseases of young girls; vertigo due to stomach trouble; gastric headache; salivation reflex from menstruation and early symptoms of pregnancy; thymic enlargement from uterine irritation; congestion of mammary gland from menstruation or conception; congestion and pain in ovary or testicle, due to parotitis, etc.

IV. Disease due to prolonged anemia or congestion or tissue changes in the spinal cord or sympathetic ganglia affecting nerve cells, as in locomotor ataxia, spastic paraplegia, progressive muscular atrophy, probably epilepsy and probably the primary cause of most of the conditions in the above classes.

V. Congestion of one part of the body causing anemia in another part—as fainting due to pelvic or abdominal congestion, constipation due to pelvic congestion, etc.

In every diseased condition of the body, we find vaso-motor change as either the cause or result—very often as the cause and always as a result.

In some cases vascular changes are physiological, as congestion to carry away impurities, or to build up destroyed or diseased tissue.

In some cases vascular changes are the result of constant irritation or overuse or abuse of an organ, and becomes chronic, leading to catarrh, tissue changes and abnormal function, and then the irritation is carried to the center in the cord, and produces its effect there, as well as the muscles and ligaments of the back supplied from that segment.

In a case of long standing of this kind, the removal of the irritation alone will not suffice—changes in the muscles and spine in that region caused by the irritation which now have become a lesion, must be corrected.

A lesion which will produce a derangement of an organ or part, whether vascular or not, will also cause all tissues supplied from the same region in the spine. to be affected, thus we find contracted or flabby muscles and ligaments near a spinal lesion—which may be caused directly by the lesion, or through vascular changes caused by the lesion.

Vaso-motor derangement will affect the secretory glands or tissues by causing excessive secretion (diarrhoea, leucorrhoea catarrh, etc.), deficient secretion, (constipation, decrease in bile secretion, etc.); or disproportionate secretion (diarrhoea alternating with constipation, etc.)

In general vaso-motor disorders, we may find a local cause or irritation so great as to affect the entire system or a condition of the blood or spine, affecting the vaso-motor centers along the spine.

In reflex vascular troubles, the irritation, as irritation it usually is, travels along the line of least resistance—through spinal or sympathetic cord, or along sympathetic plexuses (as hypogastric to aortic, to solar, or from there to heart through splanchnics) to the weakest part. In hemicrania due to pelvic disease, we would expect to find a lesion to the neck, interfering with the circulation to the head, as well as lesion affecting the pelvic organs.

In hot flashes due to menstrual disorder or menopause the effect is seen more in the face because of its vascularity.

In considering the treatment of vaso-motor troubles, there are two things to consider, first, the means or methods used, and second, when, where and how to use in a particular case. First find the cause—the lesion—and remove it. The methods used to correct a lesion—loosening the tissues about it, and the en-

deavor to correct it, in themselves aid in the cure, and temporarily relieve. As for instance, where a lesion exists in the spine, the relaxation of the muscles and spine, frees the circulatioon to the spinal cord and adjacent tissues and certainly gives at least, temporary relief.

Relaxation of tissues and inhibition in the sub-occipital region will equalize circulation over the entire body by causing general vaso-dilatation—this effect is probably obtained by bettering the circulation to the bulbar center, and by inhibiting constrictor impulses passing from it. We know inhibition to the sub-occipital will relieve a congested headache, or in fever, reduce temperature by relaxation of the superficial blood vessels, so more blood is carried to the surface of the body and heat dissipation takes place—also causing perspiration.

A congestion in one part of the body, means anemia in some other part, or vice versa. Correction of one will correct the other. Besides inhibition of the sub-occipital region, inhibition or relaxation of the splanchnic region of the spine, and inhibition over solar plexus, will relax the abdominal blood vessels and relieve congestion elsewhere.

As stated elsewhere, heat and cold have effect on vaso-motor nerves (the effect may be on the muscular wall of the artery). The application of heat will cause a relaxation of the blood vessels, and a tendency to congestion of the part; and cold will have the opposite effect—although in the case of cold, the vaso constriction may be followed by a vaso-dilatation. Along this line I wish to quote from an article by W. F. Glenn, in "The Medical Record" taken from the Nashville Journal of Medicine and Surgery:

"When there exists any disease causing an increase of blood in the capillaries of an organ, the application of heat over the vaso-motor centers presiding over the organ, causes almost at once a normal flow of blood in them, and consequently a normal circulation in the organ affected; when there exists any disease, which lessens the normal amount of blood in any organ, then the application of ice over the vaso-motor center presiding over that organ, will cause a normal amount of blood to flow to that organ, resulting at once in a normal circulation, and a consequent subsidence of the disease." It would seem from this, that heat to the center and cold to the organ, in case it is congested, would bring about the desired result.

Local specific work over a congested area will free circulation both by the mechanical action in forcing the blood out, and by the constricting effect on the arteries; or if a local part is anemic, inhibition over the center supplying it, will tend to cause a dilatation of the blood vessels.

The heat has a marked effect on the circulation both by its mechanical propulsion, and by the stimulating effect of fresh blood on the vaso-motor cells.

Perfect aeration of blood is necessary to the nutrition and action of the vaso-motor centers. The effect of carbonated and aerated blood on the bulbar center has been considered. The quality of the blood has a marked effect on the vaso-motor centers, but the quality of the blood depends largely upon the vaso-motor nerves to the blood producing organs.

In long standing cases of vaso-motor trouble, where weakness of the muscular wall of the vessels has taken place, either from distension, poor nutrition or lack of vaso-motor impulses, a long course of treatment will be necessary to build up the tone of the vessels, and even after that is accomplished, the effect on other tissues—atrophy, hypertrophy, hyperplasia, etc., will have to be overcome and will require time. As an aid to the vessels or circulation, working along the veins or

aiding circulation by gravity, will accomplish much. This is illustrated by working upward over the lower part of abdomen in pelvic congestion, lifting the abdominal contents, and using the knee chest position, to free circulation, by the action of gravity, both on the blood and removing pressure by the viscera. Where we have a reflex vaso-motor trouble, we must deal both with the remote cause, whatever that may be, and also correct local lesions. In functional vaso-motor trouble, where we have a weakened condition of the vaso-motor centers, fresh air, out-door life, exercise and good nourishing food will be of untold benefit. While I have stated other methods beside the correction of the lesion, in aiding in the cure of vaso-motor derangements, I do not want to put too much emphasis upon such methods; whatever else is done to help, I want my last words of this article to be, and to admonish every osteopath, *to correct the lesion.*

16 Owsley Block.

HYPOTHETICAL LESIONS.

DR. H. S. BUNTING of Chicago, in discussing the demonstrations before the A. O. A. at Put-in-Bay, which were published in the December JOURNAL, spoke in part as follows:

We have made the error of distinguishing only between absolutely specific treatment and plain general treatment, and have ended our discussions there as if there were no midway ground to occupy between those extremes. The purpose of my talk today is to emphasize that what I call *hypothetical diagnosis and treatment* is daily necessary in our work; and that by failing to recognize this fact we have not done all we can to help ourselves and others in investigating and in perfecting our methods.

To repeat, for the purpose of making my point perfectly clear, Dr. Clark developed this idea quite clearly this morning: He pointed out, for instance, that a rib did not need to jump out of its articulation and move over into the territory of the intervertebral foramen to become a sufficient cause for disease. I have seen osteopaths who believe when they had a bad cold that such a thing had happened to them. We all know osteopaths who diagnose their cases in such a manner, believing and fearlessly asserting that a vertebra has slipped from its correct position or that a rib has assumed a false alignment, and being unable to account for the disease unless they could impute it to some such serious sugical accident. Now while these things do happen, really I think I voice the sentiment of the great rank and file of our practitioners when I say that such surgical accidents are not so very frequent. We must account in a more rational way for the larger number of cases that come to us, and as it has been pointed out by more than one speaker on the program at this meeting, and now seems to be fully agreed even among our strictest lesion osteopaths so-called we do not need to have a bony displacement as the basis for every malady we find.

Lesions are just as specifically located and treated when they happen to be nothing but congestion of soft tissue or the contraction of muscle and ligament, as if they were actually a dislocation of bones. Dr. Clark made the point plain when he cited the case of a disabled finger received from playing baseball where there was no actual displacement of the bones, and yet where there was soreness at the joint, inflammation and marked disability.

Now I insist that we should all realize that there are countless cases of lesions which are disturbances at articulations of the various tissues without any disturbances in the alignment and adjustment of the bones making up the involved joint; and that such disturbances very commonly exist up and down the spinal

column. And I insist that this being true the man who is always insisting on finding a bone out of joint to cause the trouble and to re-set such a bone to cure it, while he is inspired with the idea of being a strict lesionist, is nothing of the kind, but is a visionist and is deluding himself every day that he practices. Mind you, I am not saying that all sorts of bony lesions do not occur, for we know that they do from the point of infinitesimal malalignments and adjustments up to the point of gross surgical dislocations. But the point I am trying to make plain to you is that when these minute maladjustments do occur at the joint it is not within the power of finite intelligence to diagnose them by sight or touch, and be certain about the matter; but under such circumstances our knowledge of function enables us to make a hypothetical diagnosis of the case which for all intents and purposes is practical, because when we give a hypothetical treatment at that area seeking to restore correct adjustment and tension we usually have the satisfaction of curing the case.

Now, do I make this point plain? Our finite intelligence is such that we cannot always assign a specific lesion for every malady, and our reasoning and common sense leads us to believe that there need not always be just one sort of a lesion, as many persons in our ranks in the past seem to have believed, it being even probable that the majority of our cases are more or less of the class of these indefinite lesions affecting the tension at certain spots, we are not only justified but our only rational procedure is just to locate the area involved as closely as possible, and then by putting the joints of that area as carefully as possible through all the normal range of motions that is natural to them, we will go a great ways towards restoring the normal tension and function of the tissues at the affected spot.

These considerations make it very plain to me that we osteopaths should give more time to this particular branch of study, viz: the figuring out theoretically of the results of the wrenches, sprains, slips and mal-alignments that are possible to each of the joints between the various bones of the body, and especially of the spine, and that we should figure out corresponding manipulations which are calculated to restore these by adjustments. And in case of doubt where we have trouble at a definite spot as manifested by pain and loss of function, that we should give such a treatment at that spot as is calculated to restore due normal mobility to parts, feeling sure that by such a treatment we are both restoring structure to correct alignment and re-establishing normal tension, both of which must result in a re-establishment of a normal nutritive condition.

It is to cover this line of thinking and this line of work that I offer the profession the term hypothetical treatment, and we believe we will profit much to work along this line, admitting our handicaps, as creatures of finite intelligence dealing with a well nigh infinite variety of conditions, and I believe that work along the line of hypothetical treatment will result in bringing our therapeutics to even a much better degree of efficiency.

NOTES FROM THE SECRETARY'S OFFICE.

Practically all of the trustees for the Post-Graduate College from the membership of the Association have been selected by the board of trustees, seventeen in number, and the constitution and by-laws to govern the institution are about ready to be approved.

It is proposed to select several, perhaps as many as ten, prominent lay-people to co-operate on the board in giving the institution strength in the business world. The college will not be self-supporting; it must be endowed. Much of the endowment must come from outside of the profession; in order to secure this it will be a good policy to secure the help, if we can get it, of first class business men on our board.

The secretary has had many letters within a few days from members of the Association suggesting prominent people for places on the board. From all quarters assurances of hearty co-operation and assistance come. The movement to operate this school as soon as we are prepared, financially and otherwise to do so, is practically universal. In fact, there have been just two who did not thoroughly approve. One wrote that he believed that the Association should not go into the school business; and another thought that we should not have any on the board except members of the profession, that with business men in it, the tendency might be to run to commercialism.

I believe that neither of these points is well taken. We are now at a point when the education of the profession will determine the position osteopathy will take a generation hence. Osteopathy has passed through the experimental stage—the boom stage—it has attracted to it, to take it up as a profession those who seek the *new*, and those who want a profession, and are not qualified in educational attainments or have not the time to prepare for one of the other professions. Henceforth osteopathy will appeal to the class that the representatives of osteopathy in the field attract to them. There will be few to take it up of a higher caliber or of better qualifications than the representative who introduces the science and practice to them.

This last named fact, for it is a fact, makes it to the interest of practitioners to see that not only educational advantages are offered, but that at least in a measure the same advantages that the other schools of medicine offer, and the school of dentistry. If we are to draw college-equipped men from the best families in the communities in which our practitioners have gone, we must show them that we can give them the equipment that the other schools can give. It is a noticeable fact that, while osteopathy is practiced in many of the very best families in almost every city and town, the fewest number of the young men from these families take up osteopathy as a profession as they do the other branches of medicine. There are several reasons for it, but one serious one is our lack of stability dependent on lack of educational facilities.

This was not so earlier in our history. Then it was looked upon as a new thing and these advantages were not expected of it. We have as a result of the first ten years' work men that would rank with the highest and best in any profession, however proud it may be; but will this state continue?

The schools without endowment cannot meet the needs. If without the help of the profession they can give the minimum requirement for practice they do well. It is a question as to whether we shall, as alumni, or by districts, endow each school, or shall we by putting all in one, unite all in one, and all working together make a school that would do credit to any profession.

There has recently appeared a statement to the effect that the A. O. A. is going into the school business and become a competitor of the other schools, etc. Certainly, as I understand it, the Association has no idea of doing the work done by the present schools, or work what they can possibly afford to do, or it would not be established. If the schools can equip their graduates to take up the work that the post-graduate college has in mind to have for them to do, it will be well. So there is, and is to be, no competition. When it is known that the object is to give the opportunity for graduates and practitioners to carry on studies that they now must get in Harvard medical or some other richly endowed college and enable them to experiment in lines that are of interest to them, and of possible benefit to science; that no one can enter this post-graduate school who has not passed through one of the established osteopathic schools; that many may take up the work, there will be no hard feeling, nor occasion for such patronizing talk "as we welcome it as a competitor, only demand a fair field and no favor."

The committee appointed at the last meeting to prepare designs for the memorial tablets, for the Hall of Fame has completed its labors, and there will be a large tablet with a striking and very appropriate inscription upon it and a smaller tablet for each whose name is inscribed there. It will be recalled that Drs. W. L. Riggs, H. E. Patterson and Guy D. Hulett were to be thus commemorated.

It is probable that these tablets will be unveiled at the time of the great Tri-State meeting in Kirksville, in May.

Dr. J. A. DeTienne of Brooklyn has been chosen by the Trustees of the Association to succeed Dr. Loudon as chairman of the Special Committee on the Endowment Fund. Dr. Loudon was greatly interested in the movement but health and business considerations compelled him to resign. It is believed that Dr. DeTienne will bring much zeal and effort to the work.—*H. L. Chiles, Auburn, N. Y.*

Dr. John A. DeTienne, of Brooklyn, N. Y., has been chosen to succeed Dr. Guy E. Loudon, whose resignation was announced last month, as chairman of the special committee on Endowment. Dr. DeTienne was the first member to subscribe $500 to the endowment fund and it is safe to say that the work of this committee will be ably prosecuted under his direction.

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FEBRUARY 1, 1907.

Some Figures Concerning the A. O. A. Membership.

In the directory published in this number of the JOURNAL the names of members failing to pay the annual dues have been dropped and those elected since the meeting at Put-in-Bay have been added. There were 94 delinquents, and 97 new members. By this it will be seen that the A. O. A. has a little more than held its own in the matter of membership. This is not a bad showing for this time of the

year, as it always occurs that the gains in membership are made during the three months preceding, and at, the annual meetings. There is every reason to believe, therefore, that the close of the Norfolk meeting will see the usual per cent of gain in membership for the year. The following states suffered no losses on account of delinquencies: Arizona, Connecticut, Delaware, Florida, Indiana, Indian Territory, Louisiana, Maine, Maryland, Minnesota, Mississippi, New Hampshire, New Mexico, North Dakota, South Carolina, South Dakota, Vermont, Virginia, Washington, D. C., Wisconsin and Wyoming.

Of the above states the following made gains varying from 1 to 6, the latter being the gain in Wisconsin: Connecticut, Florida, Indiana, Louisiana, Maryland, Minnesota, North Dakota, South Carolina, Washington, D. C., Wisconsin and Wyoming.

The heaviest losses from failure to pay dues resulted in the following states: Missouri, 13; California, 8; Illinois, 7; Iowa and New York, 6 each; Colorado, Kentucky and Ohio, 5 each

Missouri, while it led in the number of delinquencies, also led in the number of recruits, there being eleven of the latter, which makes a net loss of but two in this state.

The number of new members gained in some of the other states is as follows: New York, 8; Massachusetts, 7; Illinois, 6; Pennsylvania, 5; Minnesota, California and Washington, 4 each; Georgia, Idaho, Kansas, Oregon and Rhode Island, 3 each.

In the above figures no account is taken of gains or losses made on account of removals from one state to another.

California Osteopathic Law Unconstitutional.

In the JOURNAL for September, 1906, it was announced that the Los Angeles College of Osteopathy had brought mandamus proceedings against the California State Board of Osteopathic Examiners to compel it to recognize said college. The case was decided on December 28, the opinion being handed down by Judge James, of department 7, of the Superior Court.

The attorneys for the board filed a demurrer to the petition of the plaintiffs alleging an improper joinder of parties, the college having joined with some of its graduates in bringing the proceedings. The demurrer was sustained and the petition dismissed. The reason for dismissing the petition, however, was not wholly on account of the improper joinder, as it is believed that that defect could have been remedied. The court held that the act creating the board was unconstitutional, and that this being true the board had "no function to perform and therefore none to be directed by the writ sought."

The following, from the opinion of the court, which is copied from the *Los Angeles Herald*, for December 29, gives the essential features of the statute:

"The act of the legislature, under which the state board of osteopathic examiners was appointed, was passed by the legislature in 1901. This act provides that said board shall consist of five members who shall be qualified osteopaths and graduates of legally authorized colleges of osteopathy. It is then provided.

"Said board shall hold meetings for examination at the state capital, or at some regularly conducted and legally authorized college of osteopathy within the state * * and shall issue a certificate of qualification to all applicants having a diploma or who pass the required examinations, as provided by section 4 of this act.

"Section 4 of the act provides as follows:

"It shall be unlawful for any person to practice osteopathy in this state without a license from said board. All persons practicing osteopathy within this state prior to the passage of this act and holding a diploma from a legally authorized college of osteopathy of good repute may be licensed to practice osteopathy in this state by submitting to said board of osteopathic examiners such a diploma and satisfying such board that they are the

legal holders thereof, or by undergoing an individual examination in the following branches, to wit: Anatomy, physiology, chemistry, histology, pathology, gynecology, obstetrics and theory and practice of osteopathy, and such other branches as the board shall deem advisable.

"All persons after August 1, 1901, desiring to commence the practice of osteopathy in this state shall apply to said board for a license to do so and such applicant at the time and place designated by said board, or at a regular meeting of said board, shall submit a diploma from a legally incorporated college of osteopathy recognized by the board of examiners. Having complied with the requirements of this act said board shall grant a license to such applicant to practice osteopathy in the state of California, which license shall be granted by the consent of not less than three members of said board and attested by the seal thereof."

Upon the statute as above set out the court delivered the following opinion:

"The real question which at once suggests itself, however, upon an examination of the act of the legislature under discussion here is not one of technical form merely, but affects the life of the act itself. It will be noticed that by the provisions quoted in the foregoing, subsequent to the first day of August, 1901, there is only one course prescribed for the applicant for a certificate to practice osteopathy to pursue; namely, to present a diploma from a legally incorporated college of osteopathy, recognized by the board of examiners. The act provides nowhere for any examination of applicants for certificates who may desire to practice osteopathy after the first day of August, 1901: so then, since that date, every applicant must have possessed and must possess a diploma from a legally incorporated college of osteopathy, recognized by the board of examiners. No standard is fixed by the act determining any form of measurement that the board of examiners shall apply in determining what colleges they will recognize. A college might be a "legally incorporated college of osteopathy;" that is, incorporated so far as legal forms are concerned, but with a course of instruction wholly insufficient to educate the students who might attend it in a thorough knowledge of the science, system or art it intended to teach. The act confides to the board of examiners the right and duty of determining for itself by what standard the course of instruction given in any particular college shall be measured; it is left to the judgment alone of the board of examiners to determine when they shall recognize a college and when not, and in this particular is attempted to be delegated powers which the legislature has not the right under the constitution to confer. The act leaves it to the board of examiners to legislate for themselves just what the qualifications of a college shall be to entitle it to be "recognized" by them. The legislature might perhaps have provided that graduates of a school or college having a certain prescribed course of a given number of years and of good repute should be admitted by the board of examiners; this they have not done; the privilege of taking an examination to test his or her proficiency is also denied the student by the terms of the act. The last mentioned objection has nothing to do, however, with the main question just discussed. The act appears to be clearly unconstitutional and if this conclusion is correct the board of examiners have no functions to perform and therefore none to be directed by the wright sought.

"The demurrer to the petition will be sustained and a judgment of dismissal ordered."

The weak point in this law will be of interest and should be of profit to the osteopathic profession, as it shows at least one thing to avoid. Henceforth more care should be exercised in drawing bills to be presented to legislative bodies. It is unfortunate, of course, to have our laws declared unconstitutional, but it is perhaps fortunate that the defect in this particular one was pointed out at a time when it is possible that it may be speedily remedied. We understand that portions of the medical act of California were recently declared unconstitutional for similar reasons. It may be presumed then, that if the osteopaths of the state can unite upon the provisions of a bill, which it is hoped will be the case, that they will encounter little opposition from the medical men who will themselves be seeking legislation.

Osteopathy Versus Scientific Massage.

Another oracle has spoken. Once more a doughty champion has entered the lists to demolish osteopathy. This time it is Dr. Douglas Graham, of Brookline, Mass. Like those that have gone before, this ebullition bears the ear marks of ignorance, prejudice and genuine alarm. It sounds very much like he was whistling to keep up his courage.

We quote from the Brookline Chronicle for January 5, 1907:

Dr. Douglas Graham of Brookline some time ago read a paper before the Boston Homoepathic Medical Society on "Osteopathy," which has since been printed in the New England Medical Gazette.

"Osteopathy," says Dr. Graham, "is a word that has long been in use to signify disease of bone. It is the worst possible term that could have been cribbed for any form of manual treatment whatsoever.

"Osteopathy is nothing but a crude, rough, awkward sort of massage or movement done by people who know little or nothing about either, and who assume to know everything and who shut their eyes to all that has ever gone before them in the way of manual treatment. It is doubly true, what Dr. John K. Mitchell says, 'that if physicians had only been wide-awake to the value of massage in suitable cases, the osteopaths would never have had a chance.' When osteopathy continues to thrive, it is time the general practitioner studied massage, so says the St. Louis Courier of Medicine."

If a "crude, rough, awkward sort of massage," administered by people "who know little or nothing about either," can so alarm learned (?) doctors as to cause them to write scientific (?) articles, abounding in misrepresentation and abuse, to be read before gatherings of their professional brethren all over this country; if it can make such progress in a dozen years as to bring together for mutual protection such ancient enemies as the old schools of medicine, and cause them to unite their forces in opposition to its recognition and regulation by State Legislatures, and even then, in most instances triumph over them, does it not argue an exceedingly flimsy basis for the old schools? Since three-fourths of the states and territories have extended legal regulation and protection to this "crude, rough, awkward sort of message," and since it has grown, in little more than a dozen years, from an idea in the brain of one man to a system with 4,000 practitioners patronized by hundreds of thousands of the most thoughtful people in the world, what would have happened to the old schools if it had been a mature, tender, dexterous, and scientific sort of massage? Since, with all its crudities it has become such a powerful competitor of the old schools, no wonder their practitioners are beginning to seriously consider the study and practice of massage. They doubtless would accomplish much more good by this sort of practice than by adhering to their present antiquated system. But we may say to them, in all kindness, that if they wish to keep up with the procession and to retain their hold upon their clientele they will have to go very, very much farther than this, and devote several years to the hard and faithful study of osteopathy.

An Alleged New Method of Producing Anesthesia.

Anaesthesia produced by pressure on certain nerves of the neck is the latest thing in scientific circles.

William Bankier, of London, demonstrated the system last night. Bankier placed his two hands upon the neck of the subject, and, pressing thumbs slowly into either side of the neck, he pressed against the nerves running along the carotid artery.

Without interfering with the larynx or windpipe, without violence of any kind, and absolutely without pain or discomfort, he produced as complete anaesthesia as could be produced by chloroform or ether. It was all accomplished in a moment, and the state remained while pins were stuck into the flesh without feeling.

Consciousness was restored by raising the inert body to a sitting posture and twice striking the knee of the operator into the back of the patient sharply, producing a shock between the fourth and fifth vertebrae.

Then the patient was lifted to his feet and shaken once, and quickly recovered full possession of his powers. It was tried repeatedly, and in each instance was successful, and each one who submitted to it declared there was not the slightest pain or discomfort attached to any phase of it.—*New York Journal, Dec.* 21, 1906.

The above is not entirely new as similar items appeared in the newspapers about four year ago. It would appear that it is not impossible to produce insensibility by pressure "of the neck." But it is probable that it is induced not so much by pressure exerted on nerves as by cutting off the blood supplied to the brain by the carotid arteries, and if so cannot be without its element of danger,

We would be glad to have expressions on this subject from members of the profession.

The following comment on newspaper accounts of this phenomenon, written by Dr. W. F. Link, Knoxville, Tenn., appeared in the JOURNAL for December, 1902, and is still pertinent:

Inducing general anaesthesia by means of pressure upon the carotid artery or upon the carotid sheath which incloses the artery, the internal jugular vein and the vagus nerve, would seem an eminently osteopathic procedure; but we know of no osteopath who has tried it.

We have heard of a case where brief loss of consciousness resulted in a patient whose neck was being treated; but we have never heard of an osteopath who intentionally achieved such a result.

Perhaps some of the JOURNAL'S readers have had experience or made observations along this line. If so, we should like to hear from them in detail.

It would be a priceless boon to humanity if surgical anaesthesia could be certainly, painlessly and safely induced in the manner indicated, and if any person is competent to perfect the technique of such an operation it should be an osteopath.

We suggest to the clinical department of the schools, rather than to the general practitioner, that some carefully conducted experiments along this line might yield the most valuable results.

The Council of Delegates.

Once more we call the attention of the officers of state associations to Article 10 of the constitution of the A. O. A. This was published in the JOURNAL for November, and should be read by those having the preparation of programs for these meetings in charge. Every state is entitled to at least one delegate in the council, and it is to be hoped that the election of such delegate will not be overlooked by any state association.

Remember the Prize Essay contest for 1907. Full particulars concerning it were given in the JOURNAL for October. Any member who has mislaid this copy and contemplates submitting an essay should write to the chairman of the committee on publication, Dr. W. F. Link, 703 Empire Building, Knoxville, Tenn.

Men are never so likely to settle a question rightly as when they discuss it freely.—Macaulay.

Are there any differences of opinion among the members of the Association as to the policy of the A. O. A. in any particular? If so let them be threshed out in the columns of the JOURNAL. Let those who dissent from its policies speak out in a manly way, in open meeting. Family disputes should be settled within the household. The JOURNAL, as we have heretofore stated, is the property of the members of the A. O. A. and they have the right to be heard. The only stipulations we make are that the name of the author be affixed for publication to communications; that they be written in parliamentary language; that they be of reasonable length and that unpleasant personalities be avoided. We are convinced that a frank discussion would reveal the fact that we have no grievous differences of a vital nature; that those that may seem to exist are more the result of misunderstanding than anything else.

Tennessee Board of Osteopathic Examiners.

The Tennessee Board of Osteopathic Examination and Registration will hold its next meeting in Nashville, on Thursday and Friday, February 21 and 22, 1907. Address

J. E. Collier, D. O., Secretary, 502 Willcox Bldg., Nashville, Tenn.

A hearing was held at Washington, D. C., on Jan. 17 before the Committee of the House of Representatives to which the bill providing for an osteopathic board of examiners had been referred. Dr. Charles Hazzard, of New York, appeared for the osteopaths and made a favorable impression. It is hoped and believed that the bill will be reported favorably and subsequently pass.

Dr. M. E. Pearson Killed.

The following from the *Louisville Courier Journal* for Jan. 23, 1907, will be bad news to the many friends of the deceased in the osteopathic profession. Dr. Pearson was a valued member of the A. O. A.

Dr. M. E. Pearson, a young osteopath of Louisville, was struck by a Pewee Valley car at Park and Frankfort avenues at 7 o'clock last night, and sustained injuries which resulted in his death at St. Anthony's Infirmary three hours later. When struck he was thrown a distance of several feet and his head was dashed against the stone curbing with such force that he became unconscious. He was taken into the Crescent drug store at Park and Frankfort avenues, but later he was removed to St. Anthony's hospital. He died at 10 o'clock.

Dr. Pearson was thirty-five years of age and was a native of Iowa Falls, Ia. He was reared and educated in that place, and five years ago, after he had completed his education as an osteopath, took up his residence in this city, associating himself with Dr. Bush. For several years they had offices at Fourth avenue and Breckinridge street, where Dr. Pearson also lived. Dr. Pearson was a graduate of the State University of Iowa, and also of the American School of Osteopathy at Kirksville, Mo. Shortly after he came to Louisville he took a course at the Louisville School of Medicine. Dr. Pearson is survived by his mother and two brothers.

Dr. Pearson's death was the cause of a great shock to a wide circle of acquaintances, among whom the young man was well liked.

Resolutions in Memory of Dr. M. E. Pearson.

At a meeting of the Louisville osteopaths, held January 23, the following resolutions were adopted:

Whereas, on the 22d day of January, 1907, through the sudden and untimely death of our beloved brother, Dr. M. E. Pearson, we have sustained a grievious loss; and

Whereas, the profession has lost a representative of sterling worth, suffering humanity a skillful practitioner, his associates a most estimable colleague, and his intimates a most loyal, open-hearted friend; therefore, be it

Resolved, That we, deploring our loss, share with the bereaved family of Dr. Pearson their sorrow and grief and hereby tender our heartfelt sympathy; that copies of these resolutions be sent to the afflicted family, to the local papers, to the osteopathic journals and to the Bulletin of the Atlas and Axis Clubs.

Committee: DR. W. C. M'MANAMA. DR. SILAS DINSMOOR.
DR. DORA WHEAT. DR. S. N. EPPERSON.
DR. R. H. COKE, Chairman.

The Ohio Osteopathic Association.

The Ohio Osteopathic Association had an excellent meeting at Columbus on December 29.

Dr. Geo. M. Laughlin, of Kirksville, was present and read a paper on "Tuberculosis in the spine and Hip," following which he conducted a clinic with much profit to those present.

The other parts of the program as previously announced were carried out.

Officers as follows were elected for the ensuing year: President, Dr. H. E. Worstell, Canton; Vice-President, L. A. Bumstead, Delaware; Secretary, Dr. E. H. Cosner, Upper Sandusky; Treasurer, Dr. W. E. Peirce, Lima.

Executive Committee—Drs. F. E. Corkwell, Newark; C. L. Marstellar, Youngstown; E. H. Boyes, Marietta; R. E. Tuttle, Hicksville, and Clara A. Davis, Bowling Green.

Retiring President Dr. E. W. Sackett, of Springfield, was elected delegate to the A. O A., meeting at Norfolk.

Dr. E. R. Booth, of Cincinnati, was recommended for reappointment as a member of the State Osteopathic Examining Committee.

A New Osteopathic Society.

The Southwestern Michigan Osteopathic Association was organized at Kalamazoo, November 13. Meetings will be held on the first Saturday evening of each month at Kalamazoo and Battle Creek alternately. The object of the association is mutual benefit and advancement of osteopathy.

The officers are as follows:

President, Dr. R. A. Glezen, Kalamazoo; Vice-President, Dr. Betsy Hicks, Battle Creek; Secretary-Treasurer, Dr. Frances Platt, Kalamazoo.

In the *Inter Ocean* (Chicago) for Sunday, Jan. 13, Mary H. Moore, President of the National Women's Exchange, under the caption "A New Profession" discusses osteopathy as a profession for women. There are some inaccuracies in the article, as for example, the omission of anatomy and physiology from the list of studies, but on the whole it is a pretty good presentation of the subject and is complimentary to osteopathy.

The following newspaper clippings, under date of Jan. 11, shows that the fight will be on in New York again this year. As would be expected the osteopaths of the Empire State are prepared to look after their interests:

"Chairman Whitney of the Assembly Committee on Public Health is to introduce next week the bill of last year providing for a state board of medical examiners of nine members appointed by the Regents, all of whom must be doctors of medicine graduated from a registered medical school. The board would be vested with power to hold examinations which shall be the standard of admission to the practice of medicine in this state, thus shutting out the osteopaths, unless they also take the required examination."

PERSONALS.

Born, Dec. 27, 1906, to Dr. and Mrs. M. F. Hulett, Columbus, O., a daughter.

Drs. Wilfred and Jesse Fulton Streeter of Worcester, Mass., expect shortly to locate in London, England, for the practice of osteopathy.

Dr. J. Martin Littlejohn has recently been elected to membership in the National Historical Society. This is an unsolicited honor which he greatly appreciates.

Dr. Effie Koontz of London, Ohio, has been ill for several weeks. She is now in the Mt. Carmel Hospital, in Columbus, under the professional care of Dr. M. F. Hulett and is improving.

Mr. C. H. Teall, father of Dr. C. C. Teall, died on Jan. 24 of senile grangrene at his home in Weedsport, N. Y. Mr. Teall was about 80 years of age and had been a sufferer for a year.

Dr. Charles A. Upton calls attention to the fact that Connecticut, and not Rhode Island, should be shown on the osteopathic map, prepared by him, and printed in the January JOURNAL, as having an osteopathic law.

On Dec. 7, 1906, Mrs. A. L. Conger, D. O., Second Vice-President of the A. O. A., was seriously injured in an automobile accident in New York city. She has since been confined to her bed, but under the skillful treatment of three osteopaths is gradually improving and it is hoped she will soon be well.

REMOVALS.

A. M. Hewitt, Redlands National Bank Bldg., to 122 Cajon St., Redlands, Cal.
W. B. Ervin, Chicago, Ill., to Navarro Flats, Macon, Ga.
J. T. and Elizabeth C. Bass, 1157 Broadway, to 624 Empire Bldg., Denver, Col.
W. J. and Daisy D. Hayden, Hill and Fifth Sts., to 515-521 Auditorium Bldg., Los Angeles, Cal.
George Tull, When Bldg., to 727 Pythian Bldg., Indianapolis, Ind.
Charles K. Hale, San Francisco, to Modesto, Cal.
Herbert Bernard, 504 Ferguson Bldg., to 504 Fine Arts Bldg., Detroit, Mich.
S. W. Tucker, Durham, to 402 McAdoo Bldg., Greensboro, N. C.
Elvira McKemson, Biggsville, to 706 North A St., Monmouth, Ill.
Frederick W. Gottschalk, 18 Bowker St., to 9 Linden St., Brookline, Mass.
T. C. Morris, Nez Perce, Idaho, to Spokane, Wash.
E. O. Millay, Barry, Ill., to 232 Woodward Ave., Detroit, Mich.
Henry F. Dessau, San Francisco, to Burke, Cal.
D. H. Reese, Fremont, to 442 The Nicholas, Toledo, O.
W. E. Reese, Bowling Green, to 442 The Nicholas, Toledo, O.
Dain L. and Cora N. Tasker, 417 Grant Bldg., to 526-529 Auditorium Bldg., Los Angeles, Cal.
George Wenig, Bath, N. Y., to 54 Federal Life Bldg., Hamilton, Ont.
Cylthie J. Ramsay, Albany, to McCleay Bldg., Portland, Oregon.
Martha M. Foss, Cincinnati, O., to 38 Orton Place, Buffalo, N. Y.
Frances A. Howe, Springville, N. Y., to 38 Orton Place, Buffalo, N. Y.
Charles F. Ford, 1239 O'Farrell street, to 1350 Franklin St., San Francisco, Cal.

APPLICANTS FOR MEMBERSHIP IN THE A. O. A.

J. Birdsall Banker, 115 W. 11th St., New York City.
John Ambrose Barnett, 221 E. Morgan St., Martinsville, Ind.
C. P. Christiansen, Main St., Humboldt, Ia.
Evan G. Houseman, Acme Bldg., Nampa, Idaho.
W. M. Johns, 515 Byrne Bldg., Los Angeles, Cal.
Lula A. Johnson, Woolworth Bldg., Lancaster, Pa.
Jane E. Lockwood, 93 Prospect Ave., Buffalo, N. Y.
Jefferson T. Novinger, Dominion Sq., Montreal, Quebec.
J. Paterson Ovens, 260 Bath St., Glasgow, Scotland.